FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Diamond Shamrock Refining Company, L.P.

AUTHORIZING THE OPERATION OF
Valero Three Rivers Refinery
Petroleum Refineries

LOCATED AT
Live Oak County, Texas
Latitude 28° 27' 24" Longitude 98° 11' 4"
Regulated Entity Number: RN100542802

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1450 Issuance Date: _____

_____
For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

    C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

    D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

    E. Emission units subject to 40 CFR Part 63, Subparts F, G, H, CC, UUU, ZZZZ and DDDDD as identified in the attached Applicable Requirements Summary table are

subject to 30 TAC Chapter 113, Subchapter C, §113.110, §113.120, §113.130, §113.340, §113.780, §113.1090 and §113.1130 which incorporate the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

   A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

   B. Title 30 TAC § 101.3 (relating to Circumvention)

   C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

   D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

   E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

   F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

   G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

   H. Title 30 TAC § 101.221 (relating to Operational Requirements)

   I. Title 30 TAC § 101.222 (relating to Demonstrations)

   J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

   A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

      (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

      (ii) Title 30 TAC § 111.111(a)(1)(E)

      (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

      (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive

ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity

requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)

(iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to

condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).

E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

F. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:

(i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)

(ii) Title 30 TAC § 111.207 (relating to Exception for Recreation, Ceremony, Cooking, and Warmth)

(iii) Title 30 TAC § 111.209 (relating to Exception for Disposal Fires)

(iv) Title 30 TAC § 111.219 (relating to General Requirements for Allowable Outdoor Burning)

(v) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)

4. Permit holder shall comply with the following 30 TAC Chapter 115, Subchapter C requirements:

A. When filling stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons at a Stage I motor vehicle fuel dispensing facility, the permit holder shall comply with the following requirements specified in 30 TAC Chapter 115, Subchapter C:

(i) Title 30 TAC § 115.222(3) (relating to Control Requirements), as it applies to liquid gasoline leaks, visible vapors, or significant odors

(ii) Title 30 TAC § 115.222(6) (relating to Control Requirements)

(iii) Title 30 TAC § 115.224(1) (relating to Inspection Requirements), as it applies to liquid gasoline leaks, visible vapors, or significant odors

5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

6. For petroleum refinery facilities subject to 40 CFR Part 60, Subpart QQQ, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 60.692-1(a) - (c) (relating to Standards: General)

B. Title 40 CFR § 60.692-2(a) - (c), (e) (relating to Standards: Individual Drain Systems)

C. Title 40 CFR § 60.692-6(a) - (b) (relating to Standards: Delay of Repair)

D. Title 40 CFR § 60.692-7(a) - (b) (relating to Standards: Delay of Compliance)

E. Title 40 CFR § 60.693-1(a) - (d), (e)(1) - (3) (relating to Alternative Standards for Individual Drain Systems)

F. Title 40 CFR § 60.697(a), (b)(1) - (3) (relating to Recordkeeping Requirements), as applicable to Individual Drain Systems

G. Title 40 CFR § 60.697(f)(1) - (2), (g) (relating to Recordkeeping Requirements), as applicable to Individual Drain Systems

H. Title 40 CFR § 60.697(h) (relating to Recordkeeping Requirements), as applicable to excluded Stormwater Sewer Systems

I. Title 40 CFR § 60.697(i) (relating to Recordkeeping Requirements), as applicable to excluded Ancillary Equipment

J. Title 40 CFR § 60.697(j) (relating to Recordkeeping Requirements), as applicable to excluded Non-contact Cooling Water Systems

K. Title 40 CFR § 60.698(a), and (b)(1) (relating to Reporting Requirements), as applicable to Individual Drain Systems

L. Title 40 CFR § 60.698(c) (relating to Reporting Requirements), for water seal breaches in Drain Systems

M. Title 40 CFR § 60.698(e) (relating to Reporting Requirements), as applicable to Individual Drain Systems

7. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 61.05 (relating to Prohibited Activities)

B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)

C. Title 40 CFR § 61.09 (relating to Notification of Start-up)

D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)

E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)

F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)

G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)

H. Title 40 CFR § 61.15 (relating to Modification)

I. Title 40 CFR § 61.19 (relating to Circumvention)

8. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)

B. Title 40 CFR § 61.342(e)(1) (relating to Standards: General)

C. Title 40 CFR § 61.342(e)(2)(i) - (ii) (relating to Standards: General)

D. Title 40 CFR § 61.342(f)(1), and (2) (relating to Standards: General)

E. Title 40 CFR § 61.342(g) (relating to Standards: General)

F. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)

G. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)

H. Title 40 CFR § 61.355(k)(1) - (6), and (7)(i) - (iv) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures

I. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)

J. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)

K. Title 40 CFR § 61.356(b)(4) (relating to Recordkeeping Requirements)

L. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)

M. Title 40 CFR § 61.356(c) (relating to Recordkeeping Requirements)

N. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)

O. Title 40 CFR § 61.357(d)(5) (relating to Reporting Requirements)

P. Waste generated by remediation activities at these facilities are subject to the requirements identified under 40 CFR § 61.342 for treatment and management of waste

9. For facilities with containers subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.345(a)(1) - (3), (b), and (c) (relating to Standards: Containers)

B. Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)

C. Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)

D. Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)

10. For facilities with individual drain systems subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.346(a)(1)(i)(A), (B), (ii), (2), and (3) (relating to Standards: Individual Drain Systems)

B. Title 40 CFR § 61.346(b)(1), (2), (2)(i), (3), (4)(i) - (iv), and (5) (relating to Standards: Individual Drain Systems)

C. Title 40 CFR § 61.346(b)(2)(ii)(A) (relating to Standards: Individual Drain Systems), for junction boxes

D. Title 40 CFR § 61.346(b)(2)(ii)(B) (relating to Standards: Individual Drain Systems), for junction boxes

E. Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)

F. Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)

G. Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)

11. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

12. For the chemical manufacturing process specified in 40 CFR Part 63, Subpart F, the permit holder shall comply with 40 CFR § 63.103(a) (relating to General Compliance, Reporting, and Recordkeeping Provisions) (Title 30 TAC Chapter 113, Subchapter C, § 113.110 incorporated by reference).

13. For the chemical manufacturing facilities subject to transfer operations requirements in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):

A. Title 40 CFR § 63.126(e)(1) - (2), and (f) (relating to Transfer Operations Provisions Reference Control Technology)

B. Title 40 CFR § 63.128(f)(1) - (2) (relating to Transfer Operations Provisions - Test Methods and Procedures)

C. Title 40 CFR § 63.130(e) (relating to Transfer Operations Provisions - Periodic Recordkeeping and Reporting)

14. For sources subject to emission standards in 40 CFR Part 63, Subpart CC, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.340 incorporated by reference):

A. Title 40 CFR § 63.640(l)(3) - (4) (relating to Applicability and Designation of Affected Source), for units and equipment added to an existing source

B. Title 40 CFR § 63.640(m)(1) - (2) (relating to Applicability and Designation of Affected Source), for units and emission points changing from Group 2 to Group 1 status

C. Title 40 CFR § 63.642(c) (relating to General Standards), for applicability of the General Provisions of Subpart A

D. Title 40 CFR § 63.642(e) (relating to General Standards), for recordkeeping

E. Title 40 CFR § 63.642(f) (relating to General Standards), for reporting

F. Group 1 process wastewater streams not managed in a wastewater management unit subject to 40 CFR Part 63, Subpart G shall comply with 40 CFR Part 61, Subpart FF as specified in 40 CFR §§ 63.647(a) - (c) and 63.655(a)

15. The permit holder shall comply with the requirement to prepare and implement an Operations and Maintenance plan in accordance with 40 CFR Part 63, Subpart UUU, § 63.1574(f) (Title 30 TAC Chapter 113, Subchapter C, § 113.780 incorporated by reference).

16. For the transfer of site remediation materials subject to 40 CFR Part 63, Subpart GGGGG off-site to another facility, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1160 incorporated by reference):

    A. Title 40 CFR § 63.7936(a), for the transfer of site remediation materials

    B. Title 40 CFR § 63.7936(b)(1), for transfer to a landfill or land disposal unit

    C. Title 40 CFR § 63.7936(b)(2), for transfer to a facility subject to 40 CFR Part 63, Subpart DD

    D. Title 40 CFR § 63.7936(b)(3), (b)(3)(i) - (iv), for transfer to a facility managing the site remediation material according to the requirements of 40 CFR Part 63, Subpart GGGGG

17. For containers managing remediation materials subject to 40 CFR Part 63, Subpart GGGGG, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.1160 incorporated by reference):

    A. Title 40 CFR § 63.922(b)(1) - (3), (c), (d), (d)(1) - (5), (e), and (f), (f)(1) - (4) (relating to Standards - Container Level 1 Controls)

    B. Title 40 CFR § 63.923(b)(1) - (3), (c), (d), (d)(1) - (5), (e), and (f), (f)(1) - (4) (relating to Standards - Container Level 2 Controls)

    C. Title 40 CFR § 63.925(a)(1) - (8), and (b)(1) - (3) (relating to Test Methods and Procedures)

    D. Title 40 CFR § 63.926(a)(1) - (3) (relating to Inspection and Monitoring Requirements)

    E. Title 40 CFR § 63.7901(b) and (b)(1), for initial demonstration of compliance

    F. Title 40 CFR § 63.7901(b)(2), for initial demonstration of compliance

    G. Title 40 CFR § 63.7901(c), (c)(1), and (c)(2), for initial demonstration of compliance

    H. Title 40 CFR § 63.7901(d), and (d)(1) - (4), for initial demonstration of compliance

    I. Title 40 CFR § 63.7903(b) and (b)(1), for continuous demonstration of compliance

    J. Title 40 CFR § 63.7903(b)(2), (b)(2)(i), (b)(2)(ii), for continuous demonstration of compliance

    K. Title 40 CFR § 63.7903(c)(4), (c)(4)(i), and (c)(4)(ii), for continuous demonstration of compliance

    L. Title 40 CFR § 63.7903(d)(5), (d)(5)(i), and (d)(5)(ii), for continuous demonstration of compliance

    M. Title 40 CFR § 63.7952(c), for recordkeeping

Additional Monitoring Requirements

18. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

    A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

    B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

    C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

    D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

    E. The permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:

        (i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or

        (ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.

    F. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

19. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular

instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

20. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

    A. Are incorporated by reference into this permit as applicable requirements

    B. Shall be located with this operating permit

    C. Are not eligible for a permit shield

21. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

22. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

23. The permit holder shall comply with the following requirements for Air Quality Standard Permits:

    A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit

    B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit

    C. Boiler Standard Permit

    D. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

Compliance Requirements

24. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

25. Use of Discrete Emission Credits to comply with the applicable requirements:

A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) If applicable, offsets for Title 30 TAC Chapter 116

(iv) Temporarily exceed state NSR permit allowables

B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

(v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

26. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

27. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:

A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

B. Any on site servicing, maintenance, and repair of fleet vehicle air conditioning using ozone-depleting refrigerants shall be conducted in accordance with 40 CFR Part 82, Subpart B. Permit holders shall ensure that repairs or refrigerant removal are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart B.

Alternative Requirements

28. The permit holder shall comply with the approved alternative means of control (AMOC); alternative monitoring, recordkeeping, or reporting requirements; or requirements determined to be equivalent to an otherwise applicable requirement contained in the Alternative Requirements attachment of this permit. Units complying with an approved alternative requirement have reference to the approval in the Applicable Requirements summary listing for the unit. The permit holder shall maintain the original documentation, from the EPA Administrator, demonstrating the method or limitation utilized. Documentation shall be maintained and made available in accordance with 30 TAC § 122.144.

Permit Location

29. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

30. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Alternative Requirement

Applicable Requirements Summary

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
B-007	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.
B-007	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device, other than a flare, that does not meet requirements in §§ 60.105(a)(4)(iv) or 60.105(b)., Monitoring Device = No instrument is in place for continuously monitoring and recording the concentration by volume of SO_2 emissions into the atmosphere.
B-007	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-2	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device located at a petroleum refinery, other than a flare, that meets requirements in §§ 60.105(a)(4)(iv) or 60.105(b) [inherently low in sulfur content], Low Sulfur = Fuel gas stream that meets a commercial-grade product specification for sulfur content of 30 ppmv or less.
B-010	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.
B-010	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja	40 CFR Part 60, Subpart Ja	Facility Type = Fuel gas combustion device, other than a flare or process heater, that does NOT meet requirements in § 60.107a(a)(3)(i)-(iv).
B-010	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS	N/A	60Ja-2	40 CFR Part 60, Subpart Ja	Facility Type = Fuel gas combustion device, other than a flare or process

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	SRU				heater, that meets requirements in § 60.107a(a)(3)(i)-(iv) [inherently low in sulfur content].
ENG-ADMIN	SRIC ENGINES	N/A	60IIII	40 CFR Part 60, Subpart IIII	No changing attributes.
ENG-ADMIN	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
ENG-SEC	SRIC ENGINES	N/A	60IIII	40 CFR Part 60, Subpart IIII	No changing attributes.
ENG-SEC	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
F-0671	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	61FF	40 CFR Part 61, Subpart FF	No changing attributes.
FL-003	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FL-003	FLARES	N/A	60A	40 CFR Part 60, Subpart A	No changing attributes.
FL-003	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja	40 CFR Part 60, Subpart Ja	No changing attributes.
FL-003	FLARES	N/A	63A	40 CFR Part 63, Subpart A	No changing attributes.
FL-004	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FL-004	FLARES	N/A	60A	40 CFR Part 60, Subpart A	No changing attributes.
FL-004	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja	40 CFR Part 60, Subpart Ja	No changing attributes.
FL-004	FLARES	N/A	63A	40 CFR Part 63, Subpart A	No changing attributes.
FL-006	FLARES	N/A	R1111	30 TAC Chapter 111, Visible	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
				Emissions	
FL-006	FLARES	N/A	60A	40 CFR Part 60, Subpart A	No changing attributes.
FL-006	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja	40 CFR Part 60, Subpart Ja	No changing attributes.
FL-006	FLARES	N/A	63A	40 CFR Part 63, Subpart A	No changing attributes.
FL-501	FLARES	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
FL-501	FLARES	N/A	60A	40 CFR Part 60, Subpart A	No changing attributes.
FL-501	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60Ja	40 CFR Part 60, Subpart Ja	No changing attributes.
FL-501	FLARES	N/A	63A	40 CFR Part 63, Subpart A	No changing attributes.
FUG-CC-EXT	FUGITIVE EMISSION UNITS	N/A	63CC	40 CFR Part 63, Subpart CC	No changing attributes.
FUG-CC-NEW	FUGITIVE EMISSION UNITS	N/A	63CC	40 CFR Part 63, Subpart CC	No changing attributes.
FUG-GGG	FUGITIVE EMISSION UNITS	N/A	60GGG-01	40 CFR Part 60, Subpart GGG	No changing attributes.
FUG-HON	FUGITIVE EMISSION UNITS	N/A	63H	40 CFR Part 63, Subpart H	No changing attributes.
GRP-5DLARGE	PROCESS HEATERS/FURNACES	B-004, H-004, H-010, H-012, H-013, H-014, H-015A, H-016, H-018, H-019, H-020, H-021, H-022, H-030, H-031, H-032, H-033, H-034, H-035, H-036,	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		H-037, H-038, H-041, H-043, H-044, H-045, H-046, H-047			
GRP-5DMID	PROCESS HEATERS/FURNACES	H-015B, H-039	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-5DOTRIM	PROCESS HEATERS/FURNACES	B-006, B-007, B-010, H-028	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-BLR1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	B-004 6F1A, B-004 6F1B, B-006	60J	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device, other than a flare, that does not meet requirements in §§ 60.105(a)(4)(iv) or 60.105(b)., Monitoring Device = No instrument is in place for continuously monitoring and recording the concentration by volume of SO_2 emissions into the atmosphere.
GRP-BLR1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	B-004 6F1A, B-004 6F1B, B-006	60J-2	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device located at a petroleum refinery, other than a flare, that meets requirements in §§ 60.105(a)(4)(iv) or 60.105(b) [inherently low in sulfur content], Low Sulfur = Fuel gas stream that meets a commercial-grade product specification for sulfur content of 30 ppmv or less.
GRP-HTR1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	H-004, H-010, H-012, H-013, H-014, H-015B, H-016, H-018, H-019, H-020, H-021, H-022, H-023, H-028, H-031,	60J	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device, other than a flare, that does not meet requirements in §§ 60.105(a)(4)(iv) or 60.105(b)., Monitoring Device = No instrument is in place for continuously

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		H-032, H-033, H-034, H-035, H-037, H-038, H-039, H-041, H-043, H-044, H-045, H-046, H-047, H-015A			monitoring and recording the concentration by volume of SO_2 emissions into the atmosphere.
GRP-HTR1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	H-004, H-010, H-012, H-013, H-014, H-015B, H-016, H-018, H-019, H-020, H-021, H-022, H-023, H-028, H-031, H-032, H-033, H-034, H-035, H-037, H-038, H-039, H-041, H-043, H-044, H-045, H-046, H-047, H-015A	60J-2	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device located at a petroleum refinery, other than a flare, that meets requirements in §§ 60.105(a)(4)(iv) or 60.105(b) [inherently low in sulfur content], Low Sulfur = Fuel gas stream that meets a commercial-grade product specification for sulfur content of 30 ppmv or less.
GRP-INSTAIR	SRIC ENGINES	E-INSTAIR1, E-INSTAIR2, E-INSTAIR3	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP-KNOCKENG	SRIC ENGINES	KNOCK-1, KNOCK-2, KNOCK-3, KNOCK-4	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP-TKEFR	STORAGE TANKS/VESSELS	S-033, S-037, S-038, S-040, S-041, S-043, S-333, S-334, S-335, S-337, S-338	63CC-HIVP	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = External floating roof, Seal Type = Two seals, one above the other, the primary seal being a

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					metallic shoe seal, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
GRP-TKEFR	STORAGE TANKS/VESSELS	S-033, S-037, S-038, S-040, S-041, S-043, S-333, S-334, S-335, S-337, S-338	63CC-LOVP	40 CFR Part 63, Subpart CC	Group 1 Storage Vessel = The storage vessel is a Group 2 vessel., Applicability = The storage vessel is required to comply with 40 CFR Part 63, Subpart CC and is part of a process unit.
GRP-TKFF	STORAGE TANKS/VESSELS	680-SB-15, 680-T-10, 680-T-13, 680-T-15, 680-T-16, D-6801, M-6801, T-680-2, T-680-3, T-680-5	61FF	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-TKFFKB	STORAGE TANKS/VESSELS	S-680-6, S-680-7, S-680-8, S-680-9	60Kb	40 CFR Part 60, Subpart Kb	No changing attributes.
GRP-TKFFKB	STORAGE TANKS/VESSELS	S-680-6, S-680-7, S-680-8, S-680-9	61FF-MSS	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-TKFXR1	STORAGE TANKS/VESSELS	S-007, S-008, S-031, S-032, S-034, S-035, S-042, S-044, S-108, S-127, S-128, S-129, S-130, S-206, S-207, S-208, S-209, S-210, S-211, S-212, S-213, S-214, S-215, S-216, S-217, S-218, S-219, S-220, S-221, S-222, S-223, S-224, S-225, S-401, S-402	63CC	40 CFR Part 63, Subpart CC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP-TKFXR2	STORAGE TANKS/VESSELS	S-114, S-115, S-116, S-311, S-3201, S-3202	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	63G-2SEAL	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G)., NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y., Maximum TVP = Maximum true vapor pressure of the total organic HAP in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Internal floating roof, Seal Type = Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the floating roof
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	63G-LOVP	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 2 vessel., NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y., NSPS Subpart Kb Applicability = The unit is not subject to 40 CFR Part 60, Subpart Kb.
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315,	63G-MSS	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		S-317, S-336			of 40 CFR 63, Subpart G)., NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y., Maximum TVP = Maximum true vapor pressure of the total organic HAP in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Internal floating roof, Seal Type = Metallic shoe seal (as defined in 40 CFR § 63.111)
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	63G-VAPOR	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G)., NESHAP Subpart Y Applicability = The unit is not subject to 40 CFR Part 61, Subpart Y., Maximum TVP = Maximum true vapor pressure of the total organic HAP in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Internal floating roof, Seal Type = VAPOR MOUNTED SEAL AS OF DEC 31, 1992
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	63G-Y2SEAL	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G)., NESHAP Subpart Y Applicability = The unit is subject to 40 CFR Part 61, Subpart Y., Maximum TVP = Maximum true vapor pressure of the total organic HAP in the liquid is less than 11.11

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					psi (76.6 kPa), Emission Control Type = Internal floating roof, Seal Type = Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the floating roof
GRP-TKHON	STORAGE TANKS/VESSELS	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	63G-YMSS	40 CFR Part 63, Subpart G	MACT Subpart F/G Applicability = The unit is a Group 1 vessel (as defined in Table 5 for existing sources or Table 6 for new sources of 40 CFR 63, Subpart G)., NESHAP Subpart Y Applicability = The unit is subject to 40 CFR Part 61, Subpart Y., Maximum TVP = Maximum true vapor pressure of the total organic HAP in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Internal floating roof, Seal Type = Metallic shoe seal (as defined in 40 CFR § 63.111)
GRP-TKIFR1	STORAGE TANKS/VESSELS	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	63CC-2SEAL	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = Two seals mounted one above the other so that each forms a continuous closure that completely cover the space between the wall of the storage vessel and

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					the edge of the internal floating roof, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
GRP-TKIFR1	STORAGE TANKS/VESSELS	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	63CC-LOVP	40 CFR Part 63, Subpart CC	Group 1 Storage Vessel = The storage vessel is a Group 2 vessel., Applicability = The storage vessel is required to comply with 40 CFR Part 63, Subpart CC and is part of a process unit.
GRP-TKIFR1	STORAGE TANKS/VESSELS	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	63CC-MSS	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = Metallic shoe seal (as defined in 40 CFR § 63.111), Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
GRP-TKIFR1	STORAGE TANKS/VESSELS	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	63CC-VAPOR	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = VAPOR-MOUNTED SEAL AS OF

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					DECEMBER 31, 1992, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
GRP-TKIFR2	STORAGE TANKS/VESSELS	S-339, S-340	60Kb-HIVP	40 CFR Part 60, Subpart Kb	Maximum True Vapor Pressure = True vapor pressure is greater than or equal to 0.75 psia but less than 11.1 psia
GRP-TKIFR2	STORAGE TANKS/VESSELS	S-339, S-340	60Kb-MIDVP	40 CFR Part 60, Subpart Kb	Maximum True Vapor Pressure = True vapor pressure is greater than or equal to 0.5 psia but less than 0.75 psia
GRP-TKIFR2	STORAGE TANKS/VESSELS	S-339, S-340	61FF-MSS	40 CFR Part 61, Subpart FF	No changing attributes.
GRP-TKIFR2	STORAGE TANKS/VESSELS	S-339, S-340	63CC-HIVP	40 CFR Part 63, Subpart CC	No changing attributes.
GRP-VISBLE	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	B-004 6F1A, B-004 6F1B, B-006, B-007, B-010, H-004, H-010, H-012, H-013, H-014, H-015A, H-016, H-018, H-019, H-020, H-021, H-022, H-023, H-028, H-031, H-032, H-033, H-034, H-035, H-037, H-038, H-039, H-041, H-043, H-044, H-045, H-046, H-047, H-015B, LABSTK1, LABSTK2,	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
		LABSTK3, LABSTK4, LABSTK5, LABSTK6, V-006, V-007, V-008, V-009, VCU-1, VCU-2			
H-023	PROCESS HEATERS/FURNACES	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
H-030	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
H-030	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device, other than a flare, that does not meet requirements in §§ 60.105(a)(4)(iv) or 60.105(b)., Monitoring Device = No instrument is in place for continuously monitoring and recording the concentration by volume of SO_2 emissions into the atmosphere.
H-030	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-2	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device located at a petroleum refinery, other than a flare, that meets requirements in §§ 60.105(a)(4)(iv) or 60.105(b) [inherently low in sulfur content], Low Sulfur = Fuel gas stream that meets a commercial-grade product specification for sulfur content of 30 ppmv or less.
H-036	EMISSION POINTS/STATIONARY	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	VENTS/PROCESS VENTS				
H-036	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device, other than a flare, that does not meet requirements in §§ 60.105(a)(4)(iv) or 60.105(b)., Monitoring Device = No instrument is in place for continuously monitoring and recording the concentration by volume of SO_2 emissions into the atmosphere.
H-036	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J-2	40 CFR Part 60, Subpart J	Facility Type = Fuel gas combustion device located at a petroleum refinery, other than a flare, that meets requirements in §§ 60.105(a)(4)(iv) or 60.105(b) [inherently low in sulfur content], Low Sulfur = Fuel gas stream that meets a commercial-grade product specification for sulfur content of 30 ppmv or less.
L-002	LOADING/UNLOADING OPERATIONS	N/A	R5211	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
L-002	LOADING/UNLOADING OPERATIONS	N/A	63CC	40 CFR Part 63, Subpart CC	No changing attributes.
L-002	LOADING/UNLOADING OPERATIONS	N/A	63G	40 CFR Part 63, Subpart G	No changing attributes.
L-005	LOADING/UNLOADING OPERATIONS	N/A	63G	40 CFR Part 63, Subpart G	No changing attributes.
P-600	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
P-601	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
P-95	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
PROBTXUNIT	CHEMICAL MANUFACTURING PROCESS	N/A	63F	40 CFR Part 63, Subpart F	No changing attributes.
PRO-SRU1	GAS SWEETENING/SULFUR RECOVERY UNITS	N/A	REG2	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PRO-SRU1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
PRO-SRU2	GAS SWEETENING/SULFUR RECOVERY UNITS	N/A	REG2	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PRO-SRU2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
S-036	STORAGE TANKS/VESSELS	N/A	63CC	40 CFR Part 63, Subpart CC	No changing attributes.
S-200	STORAGE TANKS/VESSELS	N/A	60Kb	40 CFR Part 60, Subpart Kb	No changing attributes.
S-201	STORAGE TANKS/VESSELS	N/A	60Kb-02	40 CFR Part 60, Subpart Kb	No changing attributes.
S-201	STORAGE TANKS/VESSELS	N/A	63CC-01	40 CFR Part 63, Subpart CC	No changing attributes.
S-310	STORAGE TANKS/VESSELS	N/A	63FF-01	40 CFR Part 61, Subpart FF	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
S-310	STORAGE TANKS/VESSELS	N/A	63CC-2SEAL	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = Two seals mounted one above the other so that each forms a continuous closure that completely cover the space between the wall of the storage vessel and the edge of the internal floating roof, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
S-310	STORAGE TANKS/VESSELS	N/A	63CC-LOVP	40 CFR Part 63, Subpart CC	Group 1 Storage Vessel = The storage vessel is a Group 2 vessel., Applicability = The storage vessel is required to comply with 40 CFR Part 63, Subpart CC and is part of a process unit.
S-310	STORAGE TANKS/VESSELS	N/A	63CC-MSS	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = Metallic shoe seal (as defined in 40 CFR § 63.111), Group 1 Storage Vessel = The storage vessel is a Group 1

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					storage vessel (as defined in 40 CFR § 63.641)
S-310	STORAGE TANKS/VESSELS	N/A	63CC-VAPOR	40 CFR Part 63, Subpart CC	Existing Source = The storage vessel is at an existing source., True Vapor Pressure = Maximum true vapor pressure of the total organic HAPs in the liquid is less than 11.11 psi (76.6 kPa), Emission Control Type = Fixed roof and an internal floating roof, Seal Type = VAPOR-MOUNTED SEAL AS OF DECEMBER 31, 1992, Group 1 Storage Vessel = The storage vessel is a Group 1 storage vessel (as defined in 40 CFR § 63.641)
S-354	STORAGE TANKS/VESSELS	N/A	60Kb-HIVP	40 CFR Part 60, Subpart Kb	No changing attributes.
S-354	STORAGE TANKS/VESSELS	N/A	63CC-HIVP	40 CFR Part 63, Subpart CC	No changing attributes.
S-680-21	STORAGE TANKS/VESSELS	N/A	60Kb	40 CFR Part 60, Subpart Kb	No changing attributes.
S-680-21	STORAGE TANKS/VESSELS	N/A	61FF-MSS	40 CFR Part 61, Subpart FF	No changing attributes.
V-005	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63CC-FL003	40 CFR Part 63, Subpart CC	Emissions routed to smokeless flare FL-003.
V-005	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63CC-FL004	40 CFR Part 63, Subpart CC	Emissions routed to smokeless flare FL-004.
V-006	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	SRU				
V-007	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
V-008	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	No changing attributes.
V-008	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
V-009	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	No changing attributes.
V-009	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
V-010	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
V-010	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	No changing attributes.
V-010	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU	40 CFR Part 63, Subpart UUU	No changing attributes.
VCU-1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60J	40 CFR Part 60, Subpart J	No changing attributes.
VCU-2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS	N/A	60Ja	40 CFR Part 60, Subpart Ja	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	SRU				
VENT-BTX	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-FL006	40 CFR Part 63, Subpart G	No changing attributes.
VENT-BTX	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-FL501	40 CFR Part 63, Subpart G	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
B-007	EU	60Db	SO_2	40 CFR Part 60, Subpart Db	§ 60.40b(c)	Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NOX standards under this subpart and the SO2 standards under subpart J or subpart Ja of this part, as applicable.	None	None	None
B-007	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-007	EU	60Db	PM (Opacity)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-007	EU	60Db	NO_X	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-007	EU	60J	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(d) § 60.107(f)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)		§ 60.107(g)
B-007	EU	60J-2	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)
B-010	EU	60Db	SO_2	40 CFR Part 60, Subpart Db	§ 60.40b(c)	Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NOX standards under this subpart and the SO2 standards under subpart J or subpart Ja of this part, as applicable.	None	None	None
B-010	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
B-010	EU	60Db	PM (Opacity)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						combusted in the unit > 29 MW (100 MMBtu/hr).			
B-010	EU	60Db	NO_X	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)
B-010	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
B-010	EU	60Ja-2	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
ENG-ADMIN	EU	60IIII	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 94.8(a)(2)	displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 5.0 g/KW-hr, as stated in 40 CFR 60.4202(e)-(f) and 40 CFR 94.8(a)(2) and 40 CFR 1042.101.			
ENG-ADMIN	EU	60IIII	Total Hydrocarbons/NO_x	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 94.8(a)(2)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 15 liters per cylinder and less than 20 liters per cylinder and is a 2007 - 2012 model year must comply with a THC+NOx emission limit of 8.7 g/KW-hr, as stated in 40 CFR 60.4202(e)(1) and 40 CFR 94.8(a)(2).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
ENG-ADMIN	EU	60IIII	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 94.8(a)(2)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder and is a 2007 - 2013 model year must comply with a PM emission limit of 0.50 g/KW-hr, as stated in 40 CFR 60.4202(e)(1), (e)(3) and 40	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						CFR 94.8(a)(2).			
ENG-ADMIN	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(c) § 63.6645(f)
ENG-SEC	EU	60IIII	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 37 KW and less than 130 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 5.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
ENG-SEC	EU	60IIII	NMHC and NO_X	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NOx emission	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
ENG-SEC	EU	60IIII	PM (Opacity)	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.113(a)(1) § 89.113(a)(2) § 89.113(a)(3)	Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2) and §89.113(a)(1)-(3) and §1039.105(b)(1)-(3).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)
ENG-SEC	EU	60IIII	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than 130 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.30 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	§ 60.4209(a)	§ 60.4214(b)	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ENG-SEC	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None
F-0671	EU	61FF	Benzene	40 CFR Part 61, Subpart FF	§ 61.347(a)(1) § 61.347(a)(1)(i)(A) § 61.347(a)(1)(i)(B) § 61.347(b) § 61.347(c) § 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(a)(2)(i)(A) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	Install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device.	§ 61.347(a)(1)(i)(A) § 61.347(b) § 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(1) [G]§ 61.355(h) § 61.355(i)(1) § 61.355(i)(2) § 61.355(i)(3)(i) § 61.355(i)(3)(ii) § 61.355(i)(3)(ii)(A) § 61.355(i)(3)(ii)(B) § 61.355(i)(3)(ii)(C) § 61.355(i)(3)(iii) § 61.355(i)(3)(iv) § 61.355(i)(4)	§ 61.354(c) § 61.354(c)(1) § 61.355(i)(1) § 61.355(i)(3)(ii)(A) § 61.356(d) § 61.356(f) § 61.356(f)(1) [G]§ 61.356(f)(3) § 61.356(g) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(4)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(A)
FL-003	EU	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						period, except for upset emissions as provided in §101.222(b).			
FL-003	CD	60A	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None
FL-003	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
FL-003	CD	63A	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
FL-004	EU	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FL-004	CD	60A	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None
FL-004	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
FL-004	CD	63A	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
FL-006	EU	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
FL-006	CD	60A	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)		§ 60.18(f)(4) § 60.18(f)(5)		
FL-006	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
FL-006	CD	63A	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
FL-501	EU	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
FL-501	CD	60A	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FL-501	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
FL-501	CD	63A	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
FUG-CC-EXT	EU	63CC	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
FUG-CC-NEW	EU	63CC	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63,	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					Subpart CC				
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d) § 60.593(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.593(b)(1)	Compressors in hydrogen service are exempt from the requirements of §60.592 if an owner or operator demonstrates that a compressor is in hydrogen service.	§ 60.593(b)(2) [G]§ 60.593(b)(3)	None	None
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) § 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) [G]§ 60.482-3(i) § 60.482-3(j) [G]§ 60.482-9 § 60.593(c)	Comply with the requirements as stated in §60.482-3 for reciprocating compressors that become subject under §60.14 and §60.15.	§ 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) [G]§ 60.482-3(i) § 60.482-3(j) § 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								§ 60.592(e)	
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-5 for sampling connection systems.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.592(b)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d) § 60.593(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for pumps in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m)	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.592(d)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for valves in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)
FUG-GGG	EU	60GGG-01	VOC	40 CFR Part 60, Subpart GGG	§ 60.592(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for pressure relief devices in light-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.592(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.592(e)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.592(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Compressors. §63.164(a)-(i)	[G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pumps in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Valves in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c)	Standards: Connectors in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c)

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					[G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171			[G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief devices in liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Surge control vessels and bottom receivers.	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(d) § 63.11(b) § 63.172(e) [G]§ 63.172(h) § 63.172(m)	Flares used to comply with this subpart shall comply with the requirements of § 63.11(b) of 40 CFR 63, Subpart A.	§ 63.172(e) [G]§ 63.172(h) [G]§ 63.180(b) [G]§ 63.180(d) [G]§ 63.180(e)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) § 63.181(g)(1)(iii) § 63.181(g)(1)(iv) [G]§ 63.181(g)(2)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a)	Standards: Connectors in gas/vapor service and in	[G]§ 63.174 [G]§ 63.180(b)	§ 63.181(a) [G]§ 63.181(b)	[G]§ 63.182(a) [G]§ 63.182(b)

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					§ 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	light liquid service. §63.174(a)-(j)	[G]§ 63.180(d)	§ 63.181(c) [G]§ 63.181(d)	§ 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	Owners/operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section, except as provided in §63.162(b).	[G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
FUG-HON	EU	63H	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
GRP-5DLARGE	EU	63DDDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3|1 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(12) § 63.7540(a)(13)	Boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 MBtu/h or greater.	§ 63.7515(d) § 63.7540(a) § 63.7540(a)(1)	[G]§ 63.7555(a)	§ 63.7530(e) [G]§ 63.7545(e) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c)
GRP-5DMID	EU	63DDDDD	112(B)HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.2|1 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7500(e) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(11) § 63.7540(a)(13)	Boiler or process heater with heat input capacity of < 10 MBtu/h, but > 5 MBtu/h, in a unit designed to burn gas 1.	§ 63.7515(d) [G]§ 63.7521(f) [G]§ 63.7521(g) § 63.7530(g) § 63.7540(a) § 63.7540(a)(1) [G]§ 63.7540(c)	[G]§ 63.7555(a) § 63.7555(g) § 63.7555(h)	[G]§ 63.7521(g) § 63.7530(e) [G]§ 63.7545(e) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c)
GRP-5DOTRIM	EU	63DDDDD	112(B)HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.1|2 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7500(f) § 63.7505(a)	Boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio.	§ 63.7515(d) § 63.7540(a) § 63.7540(a)(1)	[G]§ 63.7555(a)	§ 63.7530(e) [G]§ 63.7545(e) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7540(a) § 63.7540(a)(1) § 63.7540(a)(12) § 63.7540(a)(13)				
GRP-BLR1	EU	60J	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(d) § 60.107(f) § 60.107(g)
GRP-BLR1	EU	60J-2	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)
GRP-HTR1	EU	60J	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(d) § 60.107(f) § 60.107(g)
GRP-HTR1	EU	60J-2	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)

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GRP-INSTAIR	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
GRP-KNOCKENG	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.7 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(j)	For each existing non-emergency, non-black start stationary SI RICE with a site rating less than 100 HP, located at a major source, that are not 2SLB stationary RICE, you must comply with the requirements as specified in Table 2c.7.a-c.	§ 63.6625(j) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(j) § 63.6655(d) § 63.6655(e) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
GRP-TKEFR	EU	63CC-HIVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKEFR	EU	63CC-LOVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC

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					requirements of 40 CFR Part 63, Subpart CC				
GRP-TKFF	EU	61FF	Benzene	40 CFR Part 61, Subpart FF	§ 61.343(a)(1) § 61.343(a)(1)(i)(A) § 61.343(a)(1)(i)(B) § 61.343(c) § 61.343(d) § 61.349(a) § 61.349(a)(1)(i) § 61.349(a)(1)(iii) § 61.349(a)(1)(iv) § 61.349(a)(2)(i)(A) § 61.349(b) § 61.349(e) § 61.349(f) § 61.349(g)	The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device.	§ 61.343(a)(1)(i)(A) § 61.343(c) § 61.349(a)(1)(i) § 61.349(e) § 61.349(f) § 61.354(c) § 61.354(c)(1) [G]§ 61.355(h) § 61.355(i)(1) § 61.355(i)(2) § 61.355(i)(3)(i) § 61.355(i)(3)(ii) § 61.355(i)(3)(ii)(A) § 61.355(i)(3)(ii)(B) § 61.355(i)(3)(ii)(C) § 61.355(i)(3)(iii) § 61.355(i)(3)(iv) § 61.355(i)(4)	§ 61.354(c) § 61.354(c)(1) § 61.355(i)(1) § 61.355(i)(3)(ii)(A) § 61.356(d) § 61.356(f) § 61.356(f)(1) § 61.356(f)(2)(i)(A) [G]§ 61.356(f)(3) § 61.356(g) § 61.356(h) § 61.356(j) § 61.356(j)(1) § 61.356(j)(2) § 61.356(j)(3) § 61.356(j)(4)	§ 61.357(d)(7) § 61.357(d)(7)(iv) § 61.357(d)(7)(iv)(A)
GRP-TKFFKB	EU	60Kb	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)
GRP-TKFFKB	EU	61FF-MSS	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) § 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii)	As an alternative to the standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5)	§ 60.115b § 60.115b(a)(2) § 61.356(k)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3) § 61.357(e)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii) § 61.351(a)(1) § 61.351(b)				§ 61.357(f)
GRP-TKFXR1	EU	63CC	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKFXR2	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKHON	EU	63G-2SEAL	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(b) § 63.119(a)(1) [G]§ 63.119(b)(1) § 63.119(b)(2) § 63.119(b)(3)(iii) § 63.119(b)(4) § 63.119(b)(5)(i) § 63.119(b)(5)(ii) § 63.119(b)(5)(iii) § 63.119(b)(5)(iv)	Tanks using a fixed roof and an internal floating roof (defined in §63.111) to comply with §63.119(a)(1) must comply with: §63.119(b)(1)-(6).	§ 63.120(a)(3)(i) § 63.120(a)(3)(ii) § 63.120(a)(3)(iii)	§ 63.120(a)(4) § 63.123(a) § 63.123(c) § 63.123(g) [G]§ 63.152(a)	§ 63.120(a)(5) § 63.120(a)(6) § 63.122(d) § 63.122(d)(1)(ii) § 63.122(d)(1)(iii) § 63.122(d)(2)(ii) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.119(b)(5)(v) § 63.119(b)(5)(vi) § 63.119(b)(5)(vii) [G]§ 63.119(b)(5)(viii) § 63.119(b)(6) § 63.120(a)(4) § 63.120(a)(7)				§ 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
GRP-TKHON	EU	63G-LOVP	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(a)(3)	Group 2 tanks not using emissions averaging as prescribed by §63.150 shall use record keeping methods in §63.123(a). Not required to comply with §63.119 to §63.123.	None	§ 63.123(a)	§ 63.152(c)(4)(iii)
GRP-TKHON	EU	63G-MSS	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(b) § 63.119(a)(1) [G]§ 63.119(b)(1) § 63.119(b)(2) § 63.119(b)(3)(ii) § 63.119(b)(4) § 63.119(b)(5)(i) § 63.119(b)(5)(ii) § 63.119(b)(5)(iii) § 63.119(b)(5)(iv) § 63.119(b)(5)(v) § 63.119(b)(5)(vi) § 63.119(b)(5)(vii) [G]§ 63.119(b)(5)(viii) § 63.119(b)(6) § 63.120(a)(4) § 63.120(a)(7)	Tanks using a fixed roof and an internal floating roof (defined in §63.111) to comply with §63.119(a)(1) must comply with: §63.119(b)(1)-(6).	§ 63.120(a)(2)(i) § 63.120(a)(2)(ii)	§ 63.120(a)(4) § 63.123(a) § 63.123(c) § 63.123(g) [G]§ 63.152(a)	§ 63.120(a)(5) § 63.120(a)(6) § 63.122(d) § 63.122(d)(1)(ii) § 63.122(d)(1)(iii) § 63.122(d)(2)(ii) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
GRP-TKHON	EU	63G-VAPOR	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(b) § 63.119(a)(1) [G]§ 63.119(b)(1) § 63.119(b)(2) [G]§	Tanks using a fixed roof and an internal floating roof (defined in §63.111) to comply with §63.119(a)(1) must comply with:	§ 63.120(a)(2)(i) § 63.120(a)(2)(ii)	§ 63.120(a)(4) § 63.123(a) § 63.123(c) § 63.123(g) [G]§ 63.152(a)	§ 63.120(a)(5) § 63.120(a)(6) § 63.122(d) § 63.122(d)(1)(ii) § 63.122(d)(1)(iii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					63.119(b)(3)(iv) § 63.119(b)(4) § 63.119(b)(5)(i) § 63.119(b)(5)(ii) § 63.119(b)(5)(iii) § 63.119(b)(5)(iv) § 63.119(b)(5)(v) § 63.119(b)(5)(vi) § 63.119(b)(5)(vii) [G]§ 63.119(b)(5)(viii) § 63.119(b)(6) § 63.120(a)(4) § 63.120(a)(7)	§63.119(b)(1)-(6).			§ 63.122(d)(2)(ii) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
GRP-TKHON	EU	63G-Y2SEAL	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(b) § 63.119(a)(1) [G]§ 63.119(b)(1) § 63.119(b)(2) § 63.119(b)(3)(iii) § 63.119(b)(4) § 63.119(b)(5)(i) § 63.119(b)(5)(ii) § 63.119(b)(5)(iii) § 63.119(b)(5)(iv) § 63.119(b)(5)(v) § 63.119(b)(5)(vi) § 63.119(b)(5)(vii) [G]§ 63.119(b)(5)(viii) § 63.119(b)(6) § 63.120(a)(4) § 63.120(a)(7)	Tanks using a fixed roof and an internal floating roof (defined in §63.111) to comply with §63.119(a)(1) must comply with: §63.119(b)(1)-(6).	§ 63.120(a)(3)(i) § 63.120(a)(3)(ii) § 63.120(a)(3)(iii)	§ 63.120(a)(4) § 63.123(a) § 63.123(c) § 63.123(g) [G]§ 63.152(a)	§ 63.120(a)(5) § 63.120(a)(6) § 63.122(d) § 63.122(d)(1)(ii) § 63.122(d)(1)(iii) § 63.122(d)(2)(ii) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
GRP-TKHON	EU	63G-YMSS	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(b) § 63.119(a)(1) [G]§ 63.119(b)(1) § 63.119(b)(2) § 63.119(b)(3)(ii) § 63.119(b)(4)	Tanks using a fixed roof and an internal floating roof (defined in §63.111) to comply with §63.119(a)(1) must comply with: §63.119(b)(1)-(6).	§ 63.120(a)(2)(i) § 63.120(a)(2)(ii)	§ 63.120(a)(4) § 63.123(a) § 63.123(c) § 63.123(g) [G]§ 63.152(a)	§ 63.120(a)(5) § 63.120(a)(6) § 63.122(d) § 63.122(d)(1)(ii) § 63.122(d)(1)(iii) § 63.122(d)(2)(ii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.119(b)(5)(i) § 63.119(b)(5)(ii) § 63.119(b)(5)(iii) § 63.119(b)(5)(iv) § 63.119(b)(5)(v) § 63.119(b)(5)(vi) § 63.119(b)(5)(vii) [G]§ 63.119(b)(5)(viii) § 63.119(b)(6) § 63.120(a)(4) § 63.120(a)(7)				§ 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
GRP-TKIFR1	EU	63CC-2SEAL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKIFR1	EU	63CC-LOVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKIFR1	EU	63CC-MSS	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63,	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					specification requirements of 40 CFR Part 63, Subpart CC		Subpart CC		
GRP-TKIFR1	EU	63CC-VAPOR	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-TKIFR2	EU	60Kb-HIVP	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)
GRP-TKIFR2	EU	60Kb-MIDVP	VOC	40 CFR Part 60, Subpart Kb	§ 60.110b(a)	Except for §60.110b(b), this subpart applies to vessels with a capacity greater than or equal to 75 cubic meters (19,800 gal) used to store VOLs for which construction/reconstruction/ modification began after 7/23/84.	§ 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(d) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.116b(d)
GRP-TKIFR2	EU	61FF-MSS	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) § 60.112b(a)(1) § 60.112b(a)(1)(i)	As an alternative to the standards for tanks specified in § 61.343, an	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4)	§ 60.115b § 60.115b(a)(2) § 61.356(k)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii) § 61.351(a)(1) § 61.351(b)	owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	§ 60.113b(a)(5)		§ 60.115b(a)(1) § 60.115b(a)(3) § 61.357(e) § 61.357(f)
GRP-TKIFR2	EU	63CC-HIVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
GRP-VISBLE	EP	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
H-023	EU	63DDDDD	112(B)HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.1|3 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7500(e) § 63.7500(f) § 63.7505(a) § 63.7540(a) § 63.7540(a)(1)	Boiler or process heater with a heat input capacity of < to 5 MBtu/h in a unit designed to burn gas 1.	§ 63.7515(d) [G]§ 63.7521(f) [G]§ 63.7521(g) § 63.7530(g) § 63.7540(a) § 63.7540(a)(1) [G]§ 63.7540(c)	[G]§ 63.7555(a) § 63.7555(g) § 63.7555(h)	[G]§ 63.7521(g) § 63.7530(e) [G]§ 63.7545(e) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.7540(a)(11) § 63.7540(a)(12) § 63.7540(a)(13)				
H-030	EP	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
H-030	EU	60J	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4) § 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.105(e)(3)(ii) § 60.107(d) § 60.107(f) § 60.107(g)
H-030	EU	60J-2	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)
H-036	EP	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
H-036	EU	60J	Hydrogen	40 CFR Part 60,	§ 60.104(a)(1)	No owner or operator	§ 60.105(a)(4)	§ 60.105(a)(4)	§ 60.105(e)(3)(ii)

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			Sulfide	Subpart J		subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.105(a)(4)(i) § 60.105(a)(4)(ii) § 60.105(a)(4)(iii) § 60.106(a) [G]§ 60.106(e)(1)	§ 60.105(a)(4)(i) § 60.105(a)(4)(iii)	§ 60.107(d) § 60.107(f) § 60.107(g)
H-036	EU	60J-2	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)
L-002	EU	R5211	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.211(2) § 115.212(b)(2) § 115.212(b)(3)(A) § 115.212(b)(3)(A)(i) § 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.212(b)(3)(D) § 115.212(b)(3)(E) § 115.212(b)(4)(A) § 115.212(b)(4)(B) § 115.212(b)(4)(C) § 115.214(b)(1)(B) § 115.214(b)(1)(C)	Gasoline terminals, in the covered attainment counties, shall ensure that VOC emissions do not exceed 0.17lb/1,000gal, and until 4/30/00 in Gregg, Nueces, and Victoria Counties 0.67lb/1,000gal.	§ 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.212(b)(4)(C) § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(A)(ii) § 115.214(b)(1)(A)(iii) § 115.214(b)(2) § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) § 115.215(4) § 115.215(5) § 115.215(6) § 115.215(9) § 115.216(1) § 115.216(1)(A) § 115.216(1)(A)(iv)	§ 115.216 § 115.216(1) § 115.216(1)(A) § 115.216(1)(A)(iv) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B) [G]§ 115.216(3)(E)	None
L-002	EU	63CC	112(B)	40 CFR Part 63,	§ 63.640(a)	The permit holder shall	The permit holder	The permit holder shall	The permit holder shall

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			HAPS	Subpart CC	The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	comply with the applicable requirements of 40 CFR Part 63, Subpart CC	shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
L-002	EU	63G	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.126(c)	For each Group 2 transfer rack, maintain records as required in § 63.130(f). No other provisions for transfer racks apply to the Group 2 transfer rack.	None	§ 63.130(f) § 63.130(f)(1) § 63.130(f)(2) § 63.130(f)(3) § 63.130(f)(3)(i) § 63.130(f)(3)(ii)	§ 63.152(c)(4)(iii)
L-005	EU	63G	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.126(a) § 63.126(a)(1) § 63.126(a)(2) § 63.126(a)(3) § 63.126(b)(1) [G]§ 63.126(d)(3) § 63.126(f) § 63.126(g) § 63.126(h) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	For Group 1 transfer racks shall operate a vapor collection system and control device for organic HAPs.	[G]§ 63.116(c) [G]§ 63.126(d)(3) § 63.127(a) § 63.127(a)(1) § 63.127(a)(1)(i) § 63.127(e) § 63.128(a)(1) § 63.128(a)(2) § 63.128(a)(3) § 63.128(a)(4) § 63.128(e)(2) § 63.152(g)(1)(i) [G]§ 63.152(g)(1)(ii) § 63.152(g)(1)(iii) § 63.152(g)(1)(iv) [G]§ 63.152(g)(1)(v) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b)	§ 63.127(a)(1) § 63.129(a)(1) § 63.129(a)(4) § 63.129(a)(4)(i) § 63.129(a)(4)(ii) § 63.129(a)(4)(iii) § 63.130(e) § 63.130(f) § 63.130(f)(1) § 63.130(f)(2) § 63.130(f)(3) § 63.130(f)(3)(ii) [G]§ 63.152(a) [G]§ 63.152(f) § 63.152(g)(1) § 63.152(g)(1)(i) [G]§ 63.152(g)(1)(ii) § 63.152(g)(1)(iii) § 63.152(g)(1)(iv) [G]§ 63.152(g)(1)(v) [G]§ 63.152(g)(1)(vi) § 63.152(g)(2) § 63.152(g)(2)(i)	§ 63.129(a)(2) § 63.129(a)(3) § 63.129(a)(4) § 63.129(a)(4)(i) § 63.129(a)(4)(ii) § 63.129(a)(4)(iii) § 63.130(d)(1) § 63.130(d)(2) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(3)(ii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							[G]§ 63.180(d)	§ 63.152(g)(2)(ii) § 63.152(g)(2)(iii) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.152(c)(4)(ii) [G]§ 63.152(c)(6) § 63.152(g)(1) § 63.152(g)(2)(i) § 63.152(g)(2)(ii) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
P-600	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
P-601	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
P-95	EU	63ZZZZ	112(B)	40 CFR Part 63,	§ 63.6602-	For each existing	§ 63.6625(f)	§ 63.6625(j)	§ 63.6640(e)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			HAPS	Subpart ZZZZ	Table2c.6 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(j) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	emergency stationary SI RICE and black start stationary SI RICE with a site rating less than or equal to 500 HP, located at a major source, you must comply with the requirements as specified in Table 2c.6.a-c.	§ 63.6625(j) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6650(f)
PROBTXUNIT	PRO	63F	112(B) HAPS	40 CFR Part 63, Subpart F	§ 63.100(b) [G]§ 63.102(a) [G]§ 63.102(c) § 63.104(a) [G]§ 63.104(d) § 63.104(e) § 63.104(e)(1) [G]§ 63.104(e)(2) § 63.105(d)	Except as provided in paragraphs (b)(4) and (c) of this section, the provisions of subparts F, G, and H apply to chemical manufacturing process units that meet the criteria.	§ 63.103(b)(1) § 63.103(b)(3) § 63.103(b)(4) [G]§ 63.103(b)(5) § 63.103(b)(6) [G]§ 63.104(b)	[G]§ 63.103(c) [G]§ 63.104(e)(2) [G]§ 63.104(f)(1) [G]§ 63.105(b) § 63.105(c) § 63.105(e)	§ 63.103(b)(2) [G]§ 63.103(b)(5) [G]§ 63.103(d) [G]§ 63.104(f)(2)
PRO-SRU1	EU	REG2	SO_2	30 TAC Chapter 112, Sulfur Compounds	§ 112.7(a)	No person may cause, suffer, allow, or permit emissions of SO2 to exceed the emission limits specified for stack effluent flow rates < 4,000 scfm as determined by the specified equation.	§ 112.2(a) ** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)
PRO-SRU1	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU
PRO-SRU2	EU	REG2	SO_2	30 TAC Chapter 112, Sulfur Compounds	§ 112.7(a)	No person may cause, suffer, allow, or permit emissions of SO2 to exceed	§ 112.2(a) ** See Periodic Monitoring	§ 112.2(c)	§ 112.2(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						the emission limits specified for stack effluent flow rates < 4,000 scfm as determined by the specified equation.	Summary		
PRO-SRU2	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU
S-036	EU	63CC	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-200	EU	60Kb	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3)
S-201	EU	60Kb-02	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(3)	Storage vessels specified in §60.112b(a) and equipped with a closed vent system/control device are to meet the specifications of	[G]§ 60.113b(c)(1) § 60.113b(c)(2) § 60.116b(a) § 60.116b(b) § 60.116b(e)	§ 60.115b [G]§ 60.115b(c) § 60.116b(a) § 60.116b(b)	[G]§ 60.113b(c)(1) § 60.115b

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						§60.112b(a)(3)(i)-(ii).	§ 60.116b(e)(1) § 60.116b(e)(2)(i) [G]§ 60.485(b) ** See Periodic Monitoring Summary		
S-201	EU	63CC-01	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-310	EU	63FF-01	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) § 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(C) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii) § 61.351(a)(1) § 61.351(b)	As an alternative to the standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	§ 60.113b(a)(1) § 60.113b(a)(2) § 60.113b(a)(4) § 60.113b(a)(5)	§ 60.115b § 60.115b(a)(2) § 61.356(k)	§ 60.113b(a)(2) § 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(3) § 61.357(e) § 61.357(f)
S-310	EU	63CC-2SEAL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					CFR Part 63, Subpart CC				
S-310	EU	63CC-LOVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-310	EU	63CC-MSS	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-310	EU	63CC-VAPOR	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-354	EU	60Kb-HIVP	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						specifications of §60.112b(a)(2)(i)-(iii).	§ 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) § 60.116b(e)(2)(i)		[G]§ 60.115b(b)(2) § 60.115b(b)(4)
S-354	EU	63CC-HIVP	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
S-680-21	EU	60Kb	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)		
S-680-21	EU	61FF-MSS	Benzene	40 CFR Part 61, Subpart FF	§ 61.351(a) [G]§ 60.112b(a)(2) § 61.351(a)(2) § 61.351(b)	As an alternative to the standards for tanks specified in § 61.343, an owner or operator may elect to comply with one of the following §61.351(a)(1)-(3):	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6)	§ 60.115b [G]§ 60.115b(b)(3) § 61.356(k)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(4) § 61.357(e) § 61.357(f)
V-005	EP	63CC-FL003	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
V-005	EP	63CC-FL004	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.640(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart CC	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart CC
V-006	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable	The permit holder shall comply with	The permit holder shall comply with the	The permit holder shall comply with the

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						requirements of 40 CFR Part 63, Subpart UUU	the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	applicable reporting requirements of 40 CFR Part 63, Subpart UUU
V-007	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU
V-008	PRO	60J	SO_2	40 CFR Part 60, Subpart J	§ 60.104(a)(2)(i)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any Claus sulfur recovery plant with a reduction control system followed by incineration any gases containing in excess of 250 ppm by volume of SO2 at zero percent excess air.	[G]§ 60.105(a)(5) § 60.106(a) [G]§ 60.106(f)	[G]§ 60.105(a)(5)	§ 60.105(e)(4)(i) § 60.107(d) § 60.107(f) § 60.107(g)
V-008	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU
V-009	PRO	60J	SO_2	40 CFR Part 60, Subpart J	§ 60.104(a)(2)(i)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any Claus sulfur recovery plant	[G]§ 60.105(a)(5) § 60.106(a) [G]§ 60.106(f)	[G]§ 60.105(a)(5)	§ 60.105(e)(4)(i) § 60.107(d) § 60.107(f) § 60.107(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						with a reduction control system followed by incineration any gases containing in excess of 250 ppm by volume of SO2 at zero percent excess air.			
V-009	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU
V-010	EP	R1111	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See CAM Summary	None	None
V-010	EU	60J	SO_2	40 CFR Part 60, Subpart J	§ 60.104(b)(1) § 60.104(c) § 60.104(d)	For each affected fluid catalytic cracking unit catalyst regenerator with an add-on control device, reduce sulfur dioxide emissions to the atmosphere by 90 percent or maintain sulfur dioxide emissions to the atmosphere less than or equal to 50 ppm by volume, whichever is less stringent.	§ 60.105(a)(10) § 60.105(a)(11) [G]§ 60.105(a)(12) [G]§ 60.105(a)(13) [G]§ 60.105(a)(8) [G]§ 60.105(a)(9) § 60.106(a) § 60.106(g) [G]§ 60.106(h) [G]§ 60.106(k) § 60.108(a) § 60.108(c) § 60.108(d) § 60.108(e)	§ 60.105(a)(10) § 60.105(a)(11) [G]§ 60.105(a)(12) [G]§ 60.105(a)(13) [G]§ 60.105(a)(8) [G]§ 60.105(a)(9) [G]§ 60.107(b)(1) § 60.107(b)(4)	§ 60.107(a) § 60.107(c) [G]§ 60.107(c)(1) § 60.107(c)(2) [G]§ 60.107(c)(3) [G]§ 60.107(c)(4) § 60.107(d) § 60.107(f) § 60.107(g) § 60.108(e)
V-010	EU	60J	CO	40 CFR Part 60, Subpart J	§ 60.103(a) § 60.105(a)(2)	No owner or operator shall discharge or cause the	§ 60.105(a)(2) § 60.105(a)(2)(i)	§ 60.105(a)(2) § 60.105(c)	§ 60.105(e)(2) § 60.107(f)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator any gases that contain carbon monoxide (CO) in excess of 500 ppm by volume (dry basis).	§ 60.106(a) § 60.106(d)		§ 60.107(g)
V-010	EU	60J	PM	40 CFR Part 60, Subpart J	§ 60.102(a)(1)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator particulate matter in excess of 1.0 kg/Mg (2.0 lb/ton) of coke burn-off in the catalyst regenerator.	§ 60.106(a) § 60.106(b) § 60.106(b)(1) § 60.106(b)(2) [G]§ 60.106(b)(3) ** See CAM Summary	§ 60.105(c)	§ 60.107(f) § 60.107(g)
V-010	EU	60J	PM (Opacity)	40 CFR Part 60, Subpart J	§ 60.102(a)(2)	No owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any fluid catalytic cracking unit catalyst regenerator gases exhibiting greater than 30 percent opacity, except for one six-minute average opacity reading in any one hour period.	§ **See Alternative Requirements § 60.105(a)(1) § 60.106(a) § 60.106(b) § 60.106(b)(4) ** See CAM Summary	§ 60.105(a)(1) § 60.105(c)	§ 60.105(e)(1) § 60.107(f) § 60.107(g)
V-010	EU	63UUU	112(B) HAPS	40 CFR Part 63, Subpart UUU	§ 63.1560	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UUU	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UUU

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
VCU-1	EU	60J	Hydrogen Sulfide	40 CFR Part 60, Subpart J	§ 60.104(a)(1) § 60.105(a)(4)(iv) § 60.105(a)(4)(iv)(B)	No owner or operator subject to the provisions of this subpart shall burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf).	§ 60.106(a)	§ 60.107(e)	§ 60.107(f) § 60.107(g)
VCU-2	EU	60Ja	§111 Pollutant	40 CFR Part 60, Subpart Ja	§ 60.100a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Ja	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Ja
VENT-BTX	EP	63G-FL006	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare.§63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
VENT-BTX	EP	63G-FL501	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare.§63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)

Additional Monitoring Requirements

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Liquid-to-Gas Ratio	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Liquid-to-gas ratio less than 0.00138 shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: Liquid Flow Rate (AFM/Quench Pumps) ± 1% of span, or ± 1 % design liquid supply pressure Gas Flow Rate (Volumetric Flow Rate, Air to Regenerator) ± 2% of span, or ± 5% design flow rate Gas Flow Rate (Temp of Stack Exhaust Gas prior Scrubber) ± 5% of reading, or ± 10 degrees C	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Water Pressure to Nozzles in Quench/Spray Tower	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Water pressure to nozzles in quench/spray tower less than 48.92 psig shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1% of span; or ± 1% of design liquid supply pressure.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Agglo Filtering Modules Pressure Drop	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Pressure drop across Agglo Filtering Modules (AFM) less than 9.43 H2O shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1 inch water gauge pressure (± 250 pascals); or ± 2% of span.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM	Main Standard: § 60.102(a)(1)
Monitoring Information	
Indicator: Water Pressure to Nozzles in Quench/Spray Tower	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Water pressure to nozzles in quench/spray tower less than 48.92 psig shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1% of span; or ± 1% of design liquid supply pressure.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM	Main Standard: § 60.102(a)(1)
Monitoring Information	
Indicator: Agglo Filtering Modules Pressure Drop	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Pressure drop across Agglo Filtering Modules (AFM) less than 9.43 H2O shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1 inch water gauge pressure (± 250 pascals); or ± 2% of span.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM	Main Standard: § 60.102(a)(1)
Monitoring Information	
Indicator: Liquid-to-Gas Ratio	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Liquid-to-gas ratio less than 0.00138 shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: Liquid Flow Rate (AFM/Quench Pumps) ± 1% of span, or ± 1 % design liquid supply pressure Gas Flow Rate (Volumetric Flow Rate, Air to Regenerator) ± 2% of span, or ± 5% design flow rate Gas Flow Rate (Temp of Stack Exhaust Gas prior Scrubber) ± 5% of reading, or ± 10 degrees C	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM (Opacity)	Main Standard: § 60.102(a)(2)
Monitoring Information	
Indicator: Liquid-to-Gas Ratio	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Liquid-to-gas ratio less than 0.00138 shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: Liquid Flow Rate (AFM/Quench Pumps) ± 1% of span, or ± 1 % design liquid supply pressure Gas Flow Rate (Volumetric Flow Rate, Air to Regenerator) ± 2% of span, or ± 5% design flow rate Gas Flow Rate (Temp of Stack Exhaust Gas prior Scrubber) ± 5% of reading, or ± 10 degrees C	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM (Opacity)	Main Standard: § 60.102(a)(2)
Monitoring Information	
Indicator: Water Pressure to Nozzles in Quench/Spray Tower	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Water pressure to nozzles in quench/spray tower less than 48.92 psig shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1% of span; or ± 1% of design liquid supply pressure.	

CAM Summary

Unit/Group/Process Information	
ID No.: V-010	
Control Device ID No.: V-010	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart J	SOP Index No.: 60J
Pollutant: PM (Opacity)	Main Standard: § 60.102(a)(2)
Monitoring Information	
Indicator: Agglo Filtering Modules Pressure Drop	
Minimum Frequency: Hourly	
Averaging Period: 3 hour average	
Deviation Limit: Pressure drop across Agglo Filtering Modules (AFM) less than 9.43 H2O shall be considered a deviation.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 1 inch water gauge pressure (± 250 pascals); or ± 2% of span.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-VISBLE	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(B)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per quarter	
Averaging Period: n/a	
Deviation Limit: Visible emissions	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying applicable requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: H-030	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
Deviation Limit: Visible emissions exceeding 15% opacity will be considered a deviation.	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: H-036	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
Deviation Limit: Visible emissions exceeding 15% opacity will be considered a deviation.	
Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PRO-SRU1	
Control Device ID No.: CV-008	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: REG2
Pollutant: SO_2	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: SO2 Mass Emissions in Pounds per Hour	
Minimum Frequency: Four times per hour	
Averaging Period: Hourly	
Deviation Limit: Maximum SO2 Emissions= 202.9 lb/hr	
Periodic Monitoring Text: A continuous emission monitoring system (CEMS) that measures and records the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. The maximum SOx mass emission rate is the applicable or corresponding emission limit. Any monitoring data above the limit from the underlying applicable requirement shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PRO-SRU2	
Control Device ID No.: CV-009	Control Device Type: Sulfur Recovery Unit with Incinerator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: REG2
Pollutant: SO_2	Main Standard: § 112.7(a)
Monitoring Information	
Indicator: SO2 Mass Emissions in Pounds per Hour	
Minimum Frequency: Four times per hour	
Averaging Period: Hourly	
Deviation Limit: Maximum SO2 Emissions = 202.9 lb/hr	
Periodic Monitoring Text: A continuous emission monitoring system (CEMS) that measures and records the mass emissions rate of sulfur dioxide expressed in pounds per hour in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the Performance Specifications of 40 CFR Part 60, Appendix B. The maximum SOx mass emission rate is the applicable or corresponding emission limit. Any monitoring data above the limit from the underlying applicable requirement shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: S-201	
Control Device ID No.: S-201-AOS	Control Device Type: Carbon Adsorption System (Non-Regenerative)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-02
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per week	
Averaging Period: n/a	
Deviation Limit: Maximum VOC concentration shall not rise above value established by manufacturer's recommendations. The permit shall be revised to specify the maximum VOC concentration once the carbon absorption system is provided by a 3rd party vendor.	
Periodic Monitoring Text: Measure and record the VOC concentration using a portable analyzer to monitor VOC concentration at the outlet of the first, second, etc., canister but before the inlet to the second, third, etc., or final polishing canister of the carbon adsorption system, as appropriate. The monitoring device shall meet the requirements of part 60, appendix A, method 21, sections 2, 3, 4.1, 4.2, and 4.4. However, the words "leak definition" in method 21 shall be the outlet concentration. The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The monitoring instrumentation shall be maintained and operated in accordance with manufacturer's specifications or other written procedures. If the maximum reading after the outlet of the first, second, third, etc., canister (but not the final canister in the series), is above the maximum limit, that canister shall be replaced and the event recorded before the next VOC reading is taken. If the canister is not replaced and the event not recorded, it shall be considered and reported as a deviation. If the VOC concentration from the final canister is above the maximum limit it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: S-201	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-02
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: VOC Concentration	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: VOC concentration is > 400ppmv.	
Periodic Monitoring Text: Measure and record fugitive emissions from the vapor collection system in accordance with part 60, appendix A, method 21.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: S-201	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-02
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Once per year	
Averaging Period: n/a	
Deviation Limit: Presence of defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	
Periodic Monitoring Text: Visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: S-201	
Control Device ID No.: S-201-AOS	Control Device Type: Thermal Incinerator (Direct Flame Incinerator/Regenerative Thermal Oxidizer)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Kb	SOP Index No.: 60Kb-02
Pollutant: VOC	Main Standard: [G]§ 60.112b(a)(3)
Monitoring Information	
Indicator: Combustion Temperature / Exhaust Gas Temperature	
Minimum Frequency: Once per week	
Averaging Period: n/a	
Deviation Limit: Minimum combustion temperature shall not fall below value established by manufacturer's recommendations. The permit shall be revised to specify the minimum temperature once the thermal oxidizer is provided by a 3rd party vendor.	
Periodic Monitoring Text: Measure and record the combustion temperature in the combustion chamber or immediately downstream of the combustion chamber. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation.	

Permit Shield

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
440-P-103-A	N/A	40 CFR Part 60, Subpart IIII	Compression ignition stationary reciprocating internal combustion engine (SRICE) constructed prior to and/or modified/reconstructed before July 11, 2005.
440-P-103-A	N/A	40 CFR Part 63, Subpart ZZZZ	An existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year.
440-P-103-B	N/A	40 CFR Part 60, Subpart IIII	Compression ignition stationary reciprocating internal combustion engine (SRICE) constructed prior to and/or modified/reconstructed before July 11, 2005.
440-P-103-B	N/A	40 CFR Part 63, Subpart ZZZZ	An existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year.
B-007	N/A	30 TAC Chapter 112, Sulfur Compounds	Does not burn solid fuel and/or liquid fuel.
B-007	N/A	40 CFR Part 60, Subpart D	Fossil fuel fired and less than or equal to 250 MMBtu/hr
B-007	N/A	40 CFR Part 60, Subpart Dc	Maximum design heat input capacity greater than 29MW (100 MMBtu/hr)
B-010	N/A	30 TAC Chapter 112, Sulfur Compounds	The unit does not burn solid fossil fuel and/or liquid fuel.

Permit Shield

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
B-010	N/A	40 CFR Part 60, Subpart D	Steam generating units, which are greater than 73 MW (250 million Btu/hour) and constructed after June 19, 1986, are not subject to the requirements of 40 CFR Part 60, Subpart D.
B-010	N/A	40 CFR Part 60, Subpart Dc	Maximum design heat input capacity is greater than 29 MW (100 MMBtu/hr).
GRP-BLR1	B-004 6F1A, B-004 6F1B, B-006	30 TAC Chapter 112, Sulfur Compounds	Does not burn solid or liquid fuel.
GRP-BLR1	B-004 6F1A, B-004 6F1B, B-006	40 CFR Part 60, Subpart D	Fossil fuel fired and less than or equal to 250 MMBtu/hr.
GRP-BLR1	B-004 6F1A, B-004 6F1B, B-006	40 CFR Part 60, Subpart Db	Commenced construction/reconstruction/modification prior to June 19, 1984.
GRP-BLR1	B-004 6F1A, B-004 6F1B, B-006	40 CFR Part 60, Subpart Dc	Constructed before June 9, 1989 and not modified or reconstructed since.
GRP-COOLTWRS	F-0670, F-2810, F-3670	40 CFR Part 63, Subpart Q	Cooling towers have not been operated with chromium-based water treatment chemicals since September 8, 1994.
GRP-INSTAIR	E-INSTAIR1, E-INSTAIR2, E-INSTAIR3	40 CFR Part 60, Subpart IIII	Compression ignition stationary reciprocating internal combustion engine (SRIC) constructed prior to and/or modified/reconstructed before July 11, 2005.
GRP-KNOCKENG	KNOCK-1, KNOCK-2, KNOCK-3, KNOCK-4	40 CFR Part 60, Subpart JJJJ	Owner/operator of stationary SI ICE that commenced construction prior to June 12, 2006.
GRP-TKEFR	S-033, S-037, S-038, S-040, S-	40 CFR Part 60, Subpart K	Group 1 storage vessels which are also

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
	041, S-043, S-333, S-334, S-335, S-337, S-338		subject to NSPS K or NSPS Ka are only required to comply with MACT CC.
GRP-TKEFR	S-033, S-037, S-038, S-040, S-041, S-043, S-333, S-334, S-335, S-337, S-338	40 CFR Part 60, Subpart Ka	Group 1 storage vessels which are also subject to NSPS K or NSPS Ka are only required to comply with MACT CC.
GRP-TKEFR	S-033, S-037, S-038, S-040, S-041, S-043, S-333, S-334, S-335, S-337, S-338	40 CFR Part 63, Subpart EEEE	Storage vessels subject to provisions of MACT CC are classified as excluded affected sources under MACT EEEE.
GRP-TKFF	680-SB-15, 680-T-10, 680-T-13, 680-T-15, 680-T-16, D-6801, M-6801, T-680-2, T-680-3, T-680-5	40 CFR Part 60, Subpart K	Vessels are not storage tanks.
GRP-TKFF	680-SB-15, 680-T-10, 680-T-13, 680-T-15, 680-T-16, D-6801, M-6801, T-680-2, T-680-3, T-680-5	40 CFR Part 60, Subpart Ka	Vessels are not storage tanks.
GRP-TKFF	680-SB-15, 680-T-10, 680-T-13, 680-T-15, 680-T-16, D-6801, M-6801, T-680-2, T-680-3, T-680-5	40 CFR Part 60, Subpart Kb	Not subject to NSPS Kb because vessel is not a storage tank.
GRP-TKFXR1	S-007, S-008, S-031, S-032, S-034, S-035, S-042, S-044, S-108, S-127, S-128, S-129, S-130, S-206, S-207, S-208, S-209, S-210, S-211, S-212, S-213, S-214, S-215, S-216, S-217, S-218, S-219, S-220, S-221, S-222, S-223, S-224, S-	40 CFR Part 60, Subpart K	MACT CC Group 2 storage vessels that are not subject to NSPS K or NSPS Ka control requirements are exempt from NSPS K and NSPS Ka.

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The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
	225, S-401, S-402		
GRP-TKFXR1	S-007, S-008, S-031, S-032, S-034, S-035, S-042, S-044, S-108, S-127, S-128, S-129, S-130, S-206, S-207, S-208, S-209, S-210, S-211, S-212, S-213, S-214, S-215, S-216, S-217, S-218, S-219, S-220, S-221, S-222, S-223, S-224, S-225, S-401, S-402	40 CFR Part 60, Subpart Ka	MACT CC Group 2 storage vessels that are not subject to NSPS K or NSPS Ka control requirements are exempt from NSPS K and NSPS Ka.
GRP-TKFXR2	S-114, S-115, S-116, S-311, S-3201, S-3202	40 CFR Part 60, Subpart Kb	Tank with capacity greater than/equal to 151 m3 (19,815 gal) with true vapor pressure less than 3.5 kPa (0.51) psia.
GRP-TKHON	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	40 CFR Part 60, Subpart Kb	After the compliance dates specified in §63.100 of MACT F, a Group 1 or Group 2 storage vessel that is subject to the provisions of NSPS Kb and MACT G is required to comply only with the provisions of MACT G.
GRP-TKHON	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	40 CFR Part 61, Subpart Y	After the compliance dates specified in §63.100 of subpart F of this part, a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 61 subpart Y is required to comply only with the provisions of this subpart.
GRP-TKHON	S-100, S-101, S-102, S-119, S-120, S-301, S-302, S-305, S-306, S-308, S-309, S-315, S-317, S-336	40 CFR Part 63, Subpart EEEE	Storage vessels subject to provisions of HON G are classified as excluded affected sources under MACT EEEE.

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRP-TKIFR1	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	40 CFR Part 60, Subpart K	Group 1 storage vessels which are also subject to NSPS K or NSPS Ka are only required to comply with MACT CC
GRP-TKIFR1	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	40 CFR Part 60, Subpart Ka	Group 1 storage vessels which are also subject to NSPS K or NSPS Ka are only required to comply with MACT CC
GRP-TKIFR1	S-300, S-303, S-304, S-312, S-313, S-314, S-316, S-331, S-332	40 CFR Part 63, Subpart EEEE	Storage vessels subject to provisions of MACT CC are classified as excluded affected sources under MACT EEEE.
L-001	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Exempt from loading/unloading requirements because it is not in one of the listed counties and only loads/unloads non-gasoline VOCs.
L-004	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Exempt from loading/unloading requirements because it is not in one of the listed counties and only loads/unloads non-gasoline VOCs.
L-005	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Exempt from loading/unloading requirements because it is not in one of the listed counties and only loads/unloads non-gasoline VOCs.
L-005	N/A	40 CFR Part 63, Subpart EEEE	Transfer racks subject to provisions of HON G are classified as excluded sources under MACT EEEE.
L-006	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	Exempt from loading/unloading requirements because it is not in one of the listed counties and only loads/unloads non-gasoline VOCs.
P-600	N/A	40 CFR Part 60, Subpart IIII	Compression ignition stationary reciprocating internal combustion engine (SRICE)

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			constructed prior to and/or modified/reconstructed before July 11, 2005.
P-601	N/A	40 CFR Part 60, Subpart IIII	Compression ignition stationary reciprocating internal combustion engine (SRICE) constructed prior to and/or modified/reconstructed before July 11, 2005.
S-036	N/A	40 CFR Part 60, Subpart Ka	Not subject to NSPS Ka because vessel does not store petroleum liquids.
S-200	N/A	40 CFR Part 60, Subpart Kb	Tank with capacity greater than/equal to 151 m3 (19,815 gal) with true vapor pressure less than 3.5 kPa (0.51) psia.
S-310	N/A	40 CFR Part 60, Subpart K	Group 1 storage vessels which are also subject to NSPS K or NSPS Ka are only required to comply with MACT CC
S-318	N/A	40 CFR Part 63, Subpart CC	Tank does not store any of the HAPs listed in Table 1 of this subpart.
S-403	N/A	40 CFR Part 60, Subpart Kb	Storage vessel capacity is less than 75 cubic meters.
S-403	N/A	40 CFR Part 63, Subpart CC	Storage vessel capacity is less than 40 cubic meters.
V-006	N/A	40 CFR Part 63, Subpart CC	Vent does not meet the definition of a Miscellaneous Process Vent.
V-007	N/A	40 CFR Part 63, Subpart CC	Vent does not meet the definition of a Miscellaneous Process Vent.

New Source Review Authorization References

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1017M1	Issuance Date: 10/25/2017
PSD Permit No.: PSDTX331M1	Issuance Date: 10/25/2017
PSD Permit No.: PSDTX804	Issuance Date: 10/25/2017
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 122326	Issuance Date: 07/17/2015
Authorization No.: 132203	Issuance Date: 06/10/2015
Authorization No.: 141533	Issuance Date: 08/31/2016
Authorization No.: 147081	Issuance Date: 07/18/2017
Authorization No.: 148266	Issuance Date: 09/29/2017
Authorization No.: 149401	Issuance Date: 12/21/2017
Authorization No.: 150326	Issuance Date: 02/16/2018
Authorization No.: 150459	Issuance Date: 02/23/2018
Authorization No.: 50607	Issuance Date: 10/25/2017
Authorization No.: 83511	Issuance Date: 04/04/2017
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.183	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.433	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 03/14/1997
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 03/14/1997
Number: 106.533	Version No./Date: 07/04/2004

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Number: 7	Version No./Date: 05/04/1994
Number: 7	Version No./Date: 04/05/1995
Number: 8	Version No./Date: 05/04/1994
Number: 8	Version No./Date: 04/05/1995
Number: 51	Version No./Date: 11/25/1985
Number: 51	Version No./Date: 11/05/1986
Number: 58	Version No./Date: 04/04/1975

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
440-P-103-A	DELUGE N ENGINE	106.511/09/04/2000
440-P-103-B	DELUGE S ENGINE	106.511/09/04/2000
680-SB-15	DISSOLVED AIR/GAS FLOTATION UNIT NO. 3	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
680-T-10	PH CONTROL TANK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
680-T-13	RECOVERED OIL TANK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
680-T-15	PRE-DAF MIXER #3	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
680-T-16	DAF NO. 3 EFFLUENT TANK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-004 6F1A	EAST PLANT STEAM BOILER A	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-004 6F1B	EAST PLANT STEAM BOILER B	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-004	BOILER 004	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-006	EAST PLANT BOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-007	BTX BOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
B-010	SCR BOILER STACK 54-F2	83511
D-6801	PRE-DAF MIXER #2	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
E-INSTAIR1	INSTRUMENT AIR ENGINE	106.511/09/04/2000
E-INSTAIR2	INSTRUMENT AIR ENGINE 2	106.511/09/04/2000
E-INSTAIR3	INSTRUMENT AIR ENGINE 3	106.511/09/04/2000
ENG-ADMIN	ADMIN BLDG EMERGENCY GENERATOR	106.511/09/04/2000
ENG-SEC	SECURITY BLDG EMERGENCY ENGINE	106.511/09/04/2000
F-0670	NO. 1 WEST PLANT COOLING TOWER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
F-0671	API SEPARATOR	50607, PSDTX1017M1, PSDTX331M1, PSDTX804

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
F-2810	EAST PLANT COOLING TOWER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
F-3670	NO. 2 WEST PLANT COOLING TOWER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
FL-003	FCCU FLARE	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
FL-004	HCU FLARE	132203, 50607, 106.264/09/04/2000, PSDTX1017M1, PSDTX331M1, PSDTX804
FL-006	DOT FLARE	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
FL-501	CRUDE FLARE	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
FUG-CC-EXT	MACT CC FUGITIVES (EXISTING)	50607, 106.261/11/01/2003, 106.262/11/01/2003, PSDTX1017M1, PSDTX331M1, PSDTX804
FUG-CC-NEW	MACT CC FUGITIVES (NEW)	50607, 106.261/11/01/2003, 106.262/11/01/2003, PSDTX1017M1, PSDTX331M1, PSDTX804
FUG-GGG	NSPS GGG FUGITIVES	50607, 106.261/11/01/2003, 106.262/11/01/2003, PSDTX1017M1, PSDTX331M1, PSDTX804
FUG-HON	MACT H FUGITIVES	50607, 106.261/11/01/2003, 106.262/11/01/2003, PSDTX1017M1, PSDTX331M1, PSDTX804
H-004	LUBR. HDS CHARGE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-010	NO. 1 HDU REACTOR CHARGE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-012	REFORMER CHARGE HEATERS	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-013	NO. 1 STABILIZER REBOILER HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-014	NAPHTHA SPLITTER REBOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-015A	LUBR. OIL CRUDE ATMOSPHERIC HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-015A	LUBR. OIL CRUDE ATMOSPHERIC HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
H-015B	LUBR. OIL CRUDE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-015B	LUBR. OIL CRUDE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-016	VACUUM UNIT CHARGE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-018	HCU FRACTIONATION HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-019	HCU FRACTIONATION HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-020	ISOSTRIPPER REBOILER HTR	50607, 106.264/09/04/2000, PSDTX1017M1, PSDTX331M1, PSDTX804
H-021	DAO PHASE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-022	ASPHALT HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-023	TRACING OIL HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-028	CRUDE CHARGE HTR. 1	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-030	NO. 2 REFORMER CHARGE HEATERS	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-031	NO. 1 HDU STRIPPER REBOILER HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-032	NO. 2 REFORMER CHARGE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-033	#2 REFORMER STAB. REBOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-034	HCU RECYCLE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-035	HCU DEBUTANIZER REBOILER HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-036	CRUDE CHG. HTR. 1	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-037	HDU CHARGE HTR. 2	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-038	HDU REBOILER HTR. 2	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-039	NO. 1 SRU HOT OIL HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
H-041	F-2201 H2 RECYCLE HTR	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-043	REFORMATE SPLITTER REBOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-044	REFORMATE SPLITTER REBOILER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-045	DHT CHARGE HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-046	FRACTIONATOR FEED HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
H-047	NO. 2 SRU HOT OIL HEATER	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
KNOCK-1	BLEND KNOCK ENGINE 1	106.512/03/14/1997
KNOCK-2	BLEND KNOCK ENGINE 2	106.512/03/14/1997
KNOCK-3	HUB 21 KNOCK ENGINE 1	106.512/03/14/1997
KNOCK-4	HUB 21 KNOCK ENGINE 2	106.512/03/14/1997
L-001	OIL TRUCK LOADING RACK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
L-002	GASOLINE TRUCK LOADING RACK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
L-004	TANK CAR LOADING RACK	50607, 51/11/25/1985, PSDTX1017M1, PSDTX331M1, PSDTX804
L-005	TANK CAR LOADING RACK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
L-006	PROPANE TRUCK LOADING RACK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
LABSTK1	BTX 2/ HF - LAB VENT	106.122/09/04/2000
LABSTK2	LABSTK2 LEAD HOOD - LAB VENT	106.261/09/04/2000
LABSTK3	VAV 19 - LAB VENT	106.122/09/04/2000
LABSTK4	BTX 1 - LAB VENT	106.122/09/04/2000
LABSTK5	VAV 5/ LE - LAB VENT	106.122/09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
LABSTK6	COKE VENT - LAB VENT	106.122/09/04/2000
M-6801	DISSOLVED AIR/GAS FLOTATION UNIT NO. 2	122326, 50607, PSDTX1017M1, PSDTX331M1, PSDTX804
P-600	FIREPOND N ENGINE	106.511/09/04/2000
P-601	FIREPOND S ENGINE	106.511/09/04/2000
P-95	FIREWATER ENGINE	106.511/03/14/1997
PROBTXUNIT	AROMATICS UNIT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
PRO-SRU1	NO. 1 SULFUR RECOVERY UNIT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
PRO-SRU2	NO. 2 SULFUR RECOVERY UNIT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-007	STORAGE TANK 007	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-008	STORAGE TANK 008	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-031	STORAGE TANK 031	141533, PSDTX1017M1
S-032	STORAGE TANK 032	141533, PSDTX1017M1
S-033	STORAGE TANK 033	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-034	STORAGE TANK 034	141533, PSDTX1017M1
S-035	STORAGE TANK 035	141533, PSDTX1017M1
S-036	STORAGE TANK 036	150326, 50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-037	STORAGE TANK 037	141533, PSDTX1017M1
S-038	STORAGE TANK 038	141533, PSDTX1017M1
S-040	STORAGE TANK 40	141533, 149401, PSDTX1017M1

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-041	STORAGE TANK 41	141533, PSDTX1017M1
S-042	STORAGE TANK 42	141533, PSDTX1017M1
S-043	STORAGE TANK 43	141533, PSDTX1017M1
S-044	STORAGE TANK 044	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-100	STORAGE TANK 100	141533, PSDTX1017M1
S-101	STORAGE TANK 101	141533, PSDTX1017M1
S-102	STORAGE TANK 102	141533, PSDTX1017M1
S-108	STORAGE TANK 108	141533, PSDTX1017M1
S-114	STORAGE TANK 114	141533, PSDTX1017M1
S-115	STORAGE TANK 115	141533, PSDTX1017M1
S-116	STORAGE TANK 116	141533, PSDTX1017M1
S-119	STORAGE TANK 119	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-120	STORAGE TANK 120	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-127	STORAGE TANK 127	141533, PSDTX1017M1
S-128	STORAGE TANK 128	141533, PSDTX1017M1
S-129	STORAGE TANK 129	141533, PSDTX1017M1
S-130	STORAGE TANK 130	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-200	STORAGE TANK 200	141533, 149401, PSDTX1017M1
S-201	STORAGE TANK 201	141533, 106.264/09/04/2000, PSDTX1017M1
S-206	STORAGE TANK 206	141533, PSDTX1017M1
S-207	STORAGE TANK 207	141533, PSDTX1017M1

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-208	STORAGE TANK 208	141533, PSDTX1017M1
S-209	STORAGE TANK 209	141533, 58/04/04/1975, PSDTX1017M1
S-210	STORAGE TANK 210	141533, PSDTX1017M1
S-211	STORAGE TANK 211	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-212	STORAGE TANK 212	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-213	STORAGE TANK 213	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-214	STORAGE TANK 214	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-215	STORAGE TANK 215	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-216	STORAGE TANK 216	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-217	STORAGE TANK 217	141533, PSDTX1017M1
S-218	STORAGE TANK 218	141533, PSDTX1017M1
S-219	STORAGE TANK 219	141533, PSDTX1017M1
S-220	STORAGE TANK 220	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-221	STORAGE TANK 221	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-222	STORAGE TANK 222	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-223	STORAGE TANK 223	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-224	STORAGE TANK 224	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-225	STORAGE TANK 225	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-300	STORAGE TANK 300	141533, 148266, PSDTX1017M1
S-301	STORAGE TANK 301	141533, PSDTX1017M1
S-302	STORAGE TANK 302	141533, PSDTX1017M1

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-303	STORAGE TANK 303	141533, PSDTX1017M1
S-304	STORAGE TANK 304	141533, PSDTX1017M1
S-305	STORAGE TANK 305	141533, PSDTX1017M1
S-306	STORAGE TANK 306	141533, PSDTX1017M1
S-308	STORAGE TANK 308	141533, 147081, PSDTX1017M1
S-309	STORAGE TANK 309	141533, PSDTX1017M1
S-310	STORAGE TANK 310	141533, PSDTX1017M1
S-311	STORAGE TANK 311	141533, PSDTX1017M1
S-312	STORAGE TANK 312	141533, PSDTX1017M1
S-313	STORAGE TANK 313	141533, PSDTX1017M1
S-314	STORAGE TANK 314	141533, PSDTX1017M1
S-315	STORAGE TANK 315	141533, PSDTX1017M1
S-316	STORAGE TANK 316	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-317	STORAGE TANK 317	141533, PSDTX1017M1
S-318	STORAGE TANK 318	141533, PSDTX1017M1
S-3201	STORAGE TANK 3201	141533, PSDTX1017M1
S-3202	STORAGE TANK 3202	141533, PSDTX1017M1
S-331	STORAGE TANK 331	141533, PSDTX1017M1
S-332	STORAGE TANK 332	141533, PSDTX1017M1
S-333	STORAGE TANK 333	141533, 150459, PSDTX1017M1
S-334	STORAGE TANK 334	141533, PSDTX1017M1

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
S-335	STORAGE TANK 335	141533, PSDTX1017M1
S-336	STORAGE TANK 336	141533, PSDTX1017M1
S-337	STORAGE TANK 337	141533, PSDTX1017M1
S-338	STORAGE TANK 338	141533, PSDTX1017M1
S-339	STORAGE TANK 339	141533, 106.261/11/01/2003, 106.478/09/04/2000, PSDTX1017M1
S-340	STORAGE TANK 340	141533, PSDTX1017M1
S-354	S-354 STORAGE TANK	141533, PSDTX1017M1
S-401	STORAGE TANK 401	141533, PSDTX1017M1
S-402	STORAGE TANK 402	141533, PSDTX1017M1
S-403	STORAGE TANK 403	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-680-21	S-21 STORAGE TANK	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-680-6	OILY WASTEWATER TANK 680-6	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-680-7	OILY WASTEWATER TANK 680-7	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-680-8	NON-OILY WASTEWATER TANK 680-8	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
S-680-9	WASTEWATER TANK 680-9	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
T-680-2	DAF NO. 2 EFFLUENT TANK	122326, 50607, PSDTX1017M1, PSDTX331M1, PSDTX804
T-680-3	DAF NO. 2 FLOAT SUCTION TANK	122326, 50607, PSDTX1017M1, PSDTX331M1, PSDTX804
T-680-5	API SOLIDS/DAF FLOAT TANK	122326, 50607, PSDTX1017M1, PSDTX331M1, PSDTX804

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
V-005	DISULFIDE SEPARATOR VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
V-006	NO. 1 REFORMER REGEN. VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
V-007	NO. 2 REFORMER REGEN. VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
V-008	NO. 1 SRU VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
V-009	NO.2 SRU VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
V-010	FCCU SCRUBBER VENT	50607, PSDTX1017M1, PSDTX331M1, PSDTX804
VCU-1	TRUCK RACK VAPOR COMBUSTION UNIT	50607, 106.264/09/04/2000, PSDTX1017M1, PSDTX331M1, PSDTX804
VCU-2	WWTP VAPOR COMBUSTOR	122326
VENT-BTX	COMBINED BTX VENT TO FL-006	50607, PSDTX1017M1, PSDTX331M1, PSDTX804

Alternative Requirement

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

August 31, 2012

Ms. Joan Owen
Environmental Engineer
Diamond Shamrock Refining Company, L.P.
Three Rivers Refinery
P.O. Box 490
Three Rivers, Texas 78071-0490

Re: Alternative Monitoring Plan (AMP) – Fluid Catalytic Cracking Unit (FCCU) Catalyst Regenerator Wet Gas Scrubber (WGS) at the Diamond Shamrock Refining Company, L.P., Three Rivers Refinery ("Three Rivers Refinery" or "Refinery"), formerly the Valero Three Rivers Refinery, Three Rivers, Texas; Valero Consent Decree No. SA-05-CA-0569 ("Valero CD")

Dear Ms. Owen:

This letter is in response to multiple AMP requests and supplemental information provided for the Three Rivers Refinery[1], pertaining to the FCCU WGS subject to New Source Performance Standards (NSPS) for Petroleum Refineries (Subpart J) and National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, Petroleum Refineries (40 Code of Federal Regulations (CFR) Subpart UUU). Your AMP proposes parametric monitoring for the FCCU WGS, in lieu of a Continuous Opacity Monitoring System (COMS), due to moisture interference in the stack. Based upon the particular design of your WGS unit, process specific information, and performance test data provided for the FCCU WGS, the United States Environmental Protection Agency (EPA) approves your AMP for the FCCU WGS, as delineated within this letter.

Specifically, the Three Rivers Refinery FCCU WGS is a Belco Technology EDV® design. Key operating parameter limits (OPLs) were preliminarily identified[2] and then determined by performance testing to ensure that the WGS functions as intended and that emissions from the corresponding FCCU Regenerator will meet both the Valero CD, and NSPS and NESHAP regulatory requirements.

1. **Minimum Liquid-to-Gas Ratio ("L/G")** – unitless value shall not fall below 0.00138 where

    a. "L" is defined as the *total liquid flowrate to the WGS* in actual cubic feet per

[1] Initial AMP dated December 29, 2004; communications as outlined in EPA electronic mail message dated July 5, 2005; subsequent information and data provided by Three Rivers Refinery letters dated October 13, 2005, and July 10, 2012.
[2] The WGS AMP proposed a fourth operating parameter limit, minimum AFM pump discharge pressure of 98.58 psig. However, EPA determined that the proposed fourth operating parameter limit is redundant given the other OPLs established in this AMP letter.

min (acfm), and shall be determined by *pump curve correlations* in consideration of all operating pumps that provide liquid flow to any portion of the scrubber.

b. "G" is defined as *total gas flowrate to the WGS* in acfm, and *shall be considered equivalent to the FCCU Catalyst Regenerator exhaust gas flow,* Q_{Gas}, calculated according to Equation 1 at 40 CFR §63.1573(a)(1)(iii).

2. **Minimum Water Pressure to Nozzles in Quench/Spray Tower (P_Q)** – Measured in pounds per square inch gauge pressure (psig), value not to fall below 48.92 psig.

3. **Minimum Pressure Drop Across the Agglo Filtering Modules (ΔP_{FM})** – Measured in inches of water (in H_2O), value not to fall below 9.43 in H_2O.

The OPLs listed above are based upon evaluation of three one-hour test runs for each of two different test conditions of the Three Rivers Refinery's June 2012 performance test and are set as a three-hour (3-hour) hourly rolling average (HRA) limit. The two test conditions were conducted at FCCU charge rates of 16,690 barrels per day (BPD) and 19,501 BPD. The particulate matter (PM) performance test results of 0.268 lbs per 1000 lbs of coke burn off and 0.156 lbs per 1000 lbs of coke burn off, respectively, were well below the PM limit of 1.0 lb per 1000 lbs of coke burn off. The Three Rivers Refinery provided calculations for surrogate parameters in the same testing period in order to demonstrate correlations at each test condition.

This AMP approval shall be incorporated into the Three Rivers Refinery Title V permit. A deviation shall be reported and recorded for each monitoring period that any of the WGS OPLs fall below the minimum values listed above. Please feel free to contact either Mr. Daniel Hoyt, of my staff, at (214) 665-7326, or Ms. Cynthia Kaleri, of my staff, at (214) 665-6772, with any questions about this approval.

Sincerely,

Samuel Tates

for David F. Garcia
Associate Director
Air/Toxics & Inspection
Coordination Branch

cc: Michael De La Cruz
Texas Commission on
Environmental Quality (TCEQ)
Salal Tahari (TCEQ)

Appendix A

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
CEMS ..... continuous emissions monitoring system
CFR ..... Code of Federal Regulations
COMS ..... continuous opacity monitoring system
CVS ..... closed vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MACT ..... Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr ..... Million British thermal units per hour
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NESHAP ..... National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PEMS ..... predictive emissions monitoring system
PM ..... particulate matter
ppmv ..... parts per million by volume
PRO ..... process unit
PSD ..... prevention of significant deterioration
psia ..... pounds per square inch absolute
SIP ..... state implementation plan
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
Normal Operations Emission Cap (10)	Combustion Units, Cooling Towers, Flares/Vapor Combustor, Fugitives (5), Loading, Process Vents, Storage Tanks, and Wastewater	Benzene	10.63	11.69	8	8 44	
Normal Operations Emission Cap (10)	Combustion Units, Flares/Vapor Combustor, Fugitives, Process Vents, and Storage Tanks	H_2S	2.84	6.88	22	44	17
H-028	Crude Charge Heater 1 (100-H1)	NO_x	11.18	23.41	38 39 40 42	39 42 44	42 43
		CO	14.61	44.41			
		VOC	1.10	4.80			
		SO_2	15.53	14.52			
		PM	1.51	6.63			
		PM_{10}	1.51	6.63			
		$PM_{2.5}$	1.51	6.63			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-036	Crude Charge Heater 2 (100-H2)	NO_x	11.18	31.56	38 39 40 42	39 42 44	42 43
		CO	14.61	55.54			
		VOC	1.10	4.80			
		SO_2	13.53	14.52			
		PM	1.51	6.63			
		PM_{10}	1.51	6.63			
		$PM_{2.5}$	1.51	6.63			
H-016	Vacuum Unit Charge Heater (14-H1401)	NO_x	4.95	21.66	38 40 42	42 44	42 43
		CO	8.43	18.45			
		VOC	0.76	3.34			
		SO_2	9.41	10.10			
		PM	1.05	4.62			
		PM_{10}	1.05	4.62			
		$PM_{2.5}$	1.05	4.62			
H-021	ROSE "DAO" Heater (160-H1)	NO_x	1.90	8.31	38 41	44	
		CO	2.41	5.27			
		VOC	0.22	0.96			
		SO_2	2.70	2.89			
		PM	0.30	1.32			
		PM_{10}	0.30	1.32			
		$PM_{2.5}$	0.30	1.32			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-022	Asphalt Heater (160-H2)	NO_x	0.98	4.22	38	44	
		CO	1.62	3.51			
		VOC	0.15	0.64			
		SO_2	1.81	1.92			
		PM	0.20	0.88			
		PM_{10}	0.20	0.88			
		$PM_{2.5}$	0.20	0.88			
H-020	Isostripper Reboiler Heater (440-H1)	NO_x	1.99	4.90	38 41	44	
		CO	3.08	3.79			
		VOC	0.27	0.67			
		SO_2	1.90	1.53			
		PM	0.37	0.92			
		PM_{10}	0.37	0.92			
		$PM_{2.5}$	0.37	0.92			
B-007	"BTX" Boiler (54-F1)	NO_x	12.33	34.16	38 40 42	42 44	42 43
		CO	18.02	27.76			
		VOC	1.26	4.70			
		SO_2	0.17	0.48			
		PM	1.74	6.49			
		PM_{10}	1.74	6.49			
		$PM_{2.5}$	1.74	6.49			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-043	Reformate Splitter Heater No. 1. (54-H101)	NO_x	4.27	9.86	38	44	
		CO	4.24	4.90			
		VOC	0.38	0.89			
		SO_2	4.73	2.68			
		PM	0.53	1.22			
		PM_{10}	0.53	1.22			
		$PM_{2.5}$	0.53	1.22			
H-044	Reformate Splitter Heater No. 2 (54-H102)	NO_x	1.78	5.75	38 41	44	
		CO	3.03	4.90			
		VOC	0.27	0.89			
		SO_2	3.38	2.68			
		PM	0.38	1.22			
		PM_{10}	0.38	1.22			
		$PM_{2.5}$	0.38	1.22			
B-004	Boiler 6F1-A and Boiler 6F1-B (6F1-A & 6F1-B)	NO_x	25.97	72.43	38	44	
		CO	9.18	12.80			
		VOC	0.80	2.23			
		SO_2	5.66	5.16			
		PM	1.11	3.08			
		PM_{10}	1.11	3.08			
		$PM_{2.5}$	1.11	3.08			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
B-006	East Plant Boiler (6-F2)	NO_x	13.07	49.82	38	44	
		CO	6.81	12.98			
		VOC	0.59	2.24			
		SO_2	0.08	0.23			
		PM	0.81	3.09			
		PM_{10}	0.81	3.09			
		$PM_{2.5}$	0.81	3.09			
H-041	DOT H2 Recycle Furnace (F2201)	NO_x	3.40	5.70	38	44	
		CO	2.90	2.43			
		VOC	0.26	0.44			
		SO_2	3.24	1.33			
		PM	0.36	0.60			
		PM_{10}	0.36	0.60			
		$PM_{2.5}$	0.36	0.60			
H-039	No. 1 SRU Hot Oil Heater (H101)	NO_x	0.69	1.60	38	44	
		CO	0.43	0.50			
		VOC	0.04	0.08			
		SO_2	0.27	0.20			
		PM	0.05	0.11			
		PM_{10}	0.05	0.11			
		$PM_{2.5}$	0.05	0.11			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-047	No. 2 SRU Hot Oil Heater (H401)	NO_x	1.84	6.58	38	44	
		CO	2.06	3.69			
		VOC	0.18	0.65			
		SO_2	2.28	2.00			
		PM	0.25	0.91			
		PM_{10}	0.25	0.91			
		$PM_{2.5}$	0.25	0.91			
H-015A	Lubricating Oil Crude Atmospheric Heater (H1001)	NO_x	0.58	2.53	38	44	
		CO	1.01	2.20			
		VOC	0.09	0.38			
		SO_2	0.02	0.04			
		PM	0.12	0.53			
		PM_{10}	0.12	0.53			
		$PM_{2.5}$	0.12	0.53			
H-015B	Lubricating Oil Crude Atmospheric Heater (H1002)	NO_x	0.32	1.41	38	44	
		CO	0.55	1.23			
		VOC	0.05	0.22			
		SO_2	0.01	0.03			
		PM	0.06	0.30			
		PM_{10}	0.06	0.30			
		$PM_{2.5}$	0.06	0.30			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-037	HDU Charge Heater 2 (H101)	NO_x	2.68	6.72	38 41	44	
		CO	3.02	3.78			
		VOC	0.26	0.66			
		SO_2	1.86	1.52			
		PM	0.36	0.91			
		PM_{10}	0.36	0.91			
		$PM_{2.5}$	0.36	0.91			
H-038	HDU Reboiler Heater 2 (H102)	NO_x	1.85	4.65	38 41	44	
		CO	2.86	3.60			
		VOC	0.25	0.63			
		SO_2	1.76	1.45			
		PM	0.34	0.87			
		PM_{10}	0.34	0.87			
		$PM_{2.5}$	0.34	0.87			
H-014	Crude Charge Heater 3 (H1102)	NO_x	4.16	13.11	38	44	
		CO	5.51	8.69			
		VOC	0.50	1.58			
		SO_2	6.16	4.76			
		PM	0.69	2.18			
		PM_{10}	0.69	2.18			
		$PM_{2.5}$	0.69	2.18			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-034	H.C.U. Recycle Heater (H1401)	NO_x	3.47	11.24	38 41	44	
		CO	4.29	6.95			
		VOC	0.37	1.21			
		SO_2	2.64	2.80			
		PM	0.52	1.67			
		PM_{10}	0.52	1.67			
		$PM_{2.5}$	0.52	1.67			
H-035	H.C.U. Debutanizer Reboiler Heater (H1402)	NO_x	3.39	11.67	38 41	44	
		CO	5.24	9.02			
		VOC	0.46	1.57			
		SO_2	3.23	3.63			
		PM	0.63	2.17			
		PM_{10}	0.63	2.17			
		$PM_{2.5}$	0.63	2.17			
H-018	H.C.U. Fractionation Heater (H1501A)	NO_x	2.40	10.51	38 41	44	
		CO	3.71	16.22			
		VOC	0.32	1.42			
		SO_2	2.28	3.27			
		PM	0.45	1.96			
		PM_{10}	0.45	1.96			
		$PM_{2.5}$	0.45	1.96			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-019	H.C.U. Fractionation Heater (H1501B)	NO_x	2.40	8.02	38 41	44	
		CO	3.71	6.20			
		VOC	0.32	1.09			
		SO_2	2.28	2.50			
		PM	0.45	1.50			
		PM_{10}	0.45	1.50			
		$PM_{2.5}$	0.45	1.50			
H-045	DHT Charge Heater (H28001)	NO_x	1.91	8.37	38	44	
		CO	2.28	4.99			
		VOC	0.21	0.91			
		SO_2	2.55	2.73			
		PM	0.28	1.25			
		PM_{10}	0.28	1.25			
		$PM_{2.5}$	0.28	1.25			
H-046	Fractionator Feed Heater (H28002)	NO_x	2.69	11.76	38 41	44	
		CO	3.56	7.79			
		VOC	0.32	1.41			
		SO_2	3.97	4.26			
		PM	0.44	1.95			
		PM_{10}	0.44	1.95			
		$PM_{2.5}$	0.44	1.95			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-023	Dowtherm Heater (160-H3)	NO_x	0.09	0.27	38	44	
		CO	0.15	0.22			
		VOC	0.01	0.04			
		SO_2	0.17	0.13			
		PM	0.02	0.06			
		PM_{10}	0.02	0.06			
		$PM_{2.5}$	0.02	0.06			
H-004	Process Oil Treater (POT) (H401)	NO_x	0.41	1.79	38	44	
		CO	0.72	3.12			
		VOC	0.06	0.27			
		SO_2	0.01	0.03			
		PM	0.09	0.37			
		PM_{10}	0.09	0.37			
		$PM_{2.5}$	0.09	0.37			
H-031	No. 1 HDU Stripper Reboiler Heater (H501)	NO_x	0.79	3.44	38	44	
		CO	1.32	5.79			
		VOC	0.12	0.51			
		SO_2	1.46	1.57			
		PM	0.16	0.71			
		PM_{10}	0.16	0.71			
		$PM_{2.5}$	0.16	0.71			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-010	No. 1 HDU Reactor Charge Heater (H502)	NO_x	1.05	4.59	38	44	
		CO	1.76	7.71			
		VOC	0.16	0.69			
		SO_2	1.95	2.09			
		PM	0.22	0.96			
		PM_{10}	0.22	0.96			
		$PM_{2.5}$	0.22	0.96			
H-030	No. 2 Reformer Charge Heaters (H201, H203, H204)	NO_x	19.06	-	38 39 40 42	39 42 44	42 43
		CO	13.63	-			
		VOC	2.38	-			
		SO_2	16.78	-			
		PM	3.29	-			
		PM_{10}	3.29	-			
		$PM_{2.5}$	3.29	-			
H-032	No. 2 Reformer Charge Heater (H202)	NO_x	12.27	-	38 39 40 42	39 42 44	42 43
		CO	11.16	-			
		VOC	0.97	-			
		SO_2	6.87	-			
		PM	1.35	-			
		PM_{10}	1.35	-			
		$PM_{2.5}$	1.35	-			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-033	No. 2 Reformer Stab. Reboiler (H205)	NO_x	2.25	-	38 41	44	
		CO	3.48	-			
		VOC	0.30	-			
		SO_2	2.14	-			
		PM	0.42	-			
		PM_{10}	0.42	-			
		$PM_{2.5}$	0.42	-			
H-012	No.1 Reformer Charge Heaters (H504, H505A, H505B)	NO_x	5.41	-	38 41	44	
		CO	6.34	-			
		VOC	0.57	-			
		SO_2	7.00	-			
		PM	0.78	-			
		PM_{10}	0.78	-			
		$PM_{2.5}$	0.78	-			
H-013	No. 1 Stabilizer Reboiler Heater (H506)	NO_x	1.86	-	38	44	
		CO	1.05	-			
		VOC	0.09	-			
		SO_2	1.15	-			
		PM	0.13	-			
		PM_{10}	0.13	-			
		$PM_{2.5}$	0.13	-			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
H-030, H-032, H-033, H-012, and H-013	Subcaps for No.1 and No.2 Reformer Unit Heaters (H504, H505A, H505B, H506, H201, H202, H203, H204, H205)	NO_x	-	91.88	38	44	
		CO	-	59.57			
		VOC	-	10.46			
		SO_2	-	26.77			
		PM	-	14.46			
		PM_{10}	-	14.46			
		$PM_{2.5}$	-	14.46			
S-007, S-008, S-033, S-036, S-039, S-044, S-119, S-120, S-130, S-211, S-212, S-213, S-214, S-215, S-216, S-220, S-221, S-222, S-223, S-224, S-225, S-316, S 319, S-403, S-680-6, S-680-7, S 680-8, S-680-9, S-680-21	Subcaps for Storage Tanks	VOC	14.08	18.67	5 8	5 8 44	5
FL-003, FL-004, FL-006, FL-501	Subcaps for Flares	NO_x	15.59	18.83	7 38 58	7 44	7
		CO	80.33	96.98			
		VOC	63.01	117.58			
		SO_2	5.17	7.00			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
F-28, F-100 (#1 Crude, Desalter), F-400, F-500, F-620, F-660 (EPltFlareE, EPltFlareS, West Plant Flare System), F-700, F-820, F-830S, F-850 (S Merox Unit, Tank Farm), F-900, F-1000, F-1200, F-1400, F-1500, F-2000, F-2100, F-2200 (DOT/Ref Splitter, East Plant Alky Splitter), F-2300 (SWS), F-2400 (FCCU, FCCU Gas Con, FCCU Merox), F-2500, F-2600, F-2700, F-2800 (EP Cool Twr, EP Utilities), F-3700 (HCU, HCU Hot Oil Drum), F 3800, F-3900 (LEU, HCU), F-4000, F-4300, F-5400, F-2600N, F-660N, F-660 (EPltFlareW), F-680 (WWTP Tanks), F-680W, F-800E, F-800W, F-830 (RAIL, West Rack), F- 830E, F-830N, F-830W, F-850N, F-850S, F-ROSE	VOC and NH_3 Subcaps for Equipment Fugitives (5)(10)	VOC	130.44	571.34	12 13 22	11 12 13 44	
		NH_3	0.01	0.04			
F-0670	No.1 West Plant Cooling Tower (5)	VOC	0.25	1.10	21	21 44	
		PM	0.36	1.58			
		PM_{10}	0.14	0.60			
		$PM_{2.5}$	0.01	0.01			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
F-2810	East Plant Cooling Tower (5)	VOC	1.68	7.36	21	21 44	
		PM	2.40	10.52			
		PM_{10}	0.36	1.58			
		$PM_{2.5}$	0.01	0.01			
F-3670	No. 2 West Plant Cooling Tower (5)	VOC	0.59	2.58	21	21 44	
		PM	0.84	3.68			
		PM_{10}	0.32	1.41			
		$PM_{2.5}$	0.01	0.01			
F-0680	F-0680 Open-Top Biotreatment	VOC	23.08	36.23		44	
F-0671	No. 2 API Separator	VOC	0.48	0.95		44	
F-0682	Crude Unit Sump	VOC	3.70	6.50		44	
F-0683	No. 1 Reformer Sump	VOC	1.66	3.31		44	
F-0684	600 Unit Sump	VOC	0.01	0.03		44	
F-0685	R. R. Rack Sump	VOC	0.10	0.20		44	
F-0686	Truck Loading Sump	VOC	0.09	0.18		44	
F-0687	Land Farm	VOC	2.26	4.50		44	
F-0688	Vacuum Unit Sump	VOC	2.08	4.14		44	
F-0689	Crude Unload Sump	VOC	0.24	0.47		44	
F-3110	No. 2 Reformer Sump	VOC	0.59	1.18		44	

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
V-006	No. 1 Reformer Regeneration Vent	CO	37.50	1.50		44	
		Cl_2	0.40	0.02			
		VOC	1.40	0.06			
V-007	No. 2 Reformer Regeneration Vent	CO	5.00	14.02		44	
		Cl_2	0.01	0.04			
		VOC	0.04	0.13			
V-010	FCCU Regeneration Vent	NO_x	62.69	28.82	27 29 36 38 39 42 60	27 29 36 39 42 44 60	36 36 42 43 61
		CO	195.47	184.29			
		VOC	6.16	14.51			
		SO_2	43.64	52.65			
		PM	30.00	69.98			
		PM_{10}	25.11	58.58			
		$PM_{2.5}$	25.11	58.58			
		H_2SO_4	13.69	59.96			
		O_3	7.22	31.62			
		HCN	19.49	45.47			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
V-008, V-009	Subcaps for Sulfur Plants	NO_x	6.83	19.32	14 37 38 39 42 46	14 16 17 19 37 39 42 44 46	17 37 37 42 43 46
		CO	29.09	82.32			
		VOC	12.21	34.56			
		SO_2	38.88	98.27			
		PM	0.37	1.02			
		PM_{10}	0.37	1.02			
		$PM_{2.5}$	0.37	1.02			
		TRS	2.63	9.51			
L-001	Oil Truck Loading Rack	VOC	0.02	0.02		26, 44	26
L-002	Gasoline Truck Loading Rack	VOC	9.09	3.46		23 44, 26	23 26
L-004	Tank Car Loading Rack	VOC	0.01	0.01		44, 26	26
VCU-1	Loading Rack Vapor Combustor	NO_x	3.01	0.71	38 45 46	44 45 46	
		CO	8.75	2.07			
		VOC	17.98	6.88			

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
Planned Maintenance, Startup, and Shutdown (MSS) Emission Limitations							
Cooling Towers, Combustion Units, Flares/Vapor Combustor Fugitives (5), Loading, Process Vents, Storage Tanks, and Wastewater		VOC (6) (7)	4,711.24	75.49	48 49 50 51 52 53 57 58	44 47 48 49 50 51 52 53 54 56 57 58	
		NO_x (6) (7)	305.53	16.34			
		CO (6) (7)	1,202.92	43.12			
		SO_2 (6) (7)	894.13	61.04			
		PM (6) (7)	4.54	0.66			
		PM_{10} (6) (7)	4.54	0.66			
		$PM_{2.5}$ (6) (7)	4.54	0.66			
		H_2S (6) (7)	2.65	0.51			
		Benzene (6) (7) (8)	90.70	2.65			
		CS_2 (7)	0.33	0.02			
		COS (7)	1.89	0.11			
Standard Permit (SP) sources incorporated by reference. Sources remain authorized by the SP(s) as listed below:							
Registration Number 83511							

Major NSR Summary Table

Permit Numbers: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1 (Issuance Date: 10/25/2017)							
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			(lb/hr)	**(TPY) (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
B-010	BTX Boiler	NO_x	5.10	22.34	40 42	42 44	42 43
		CO	12.31	53.93			
		VOC	1.83	8.03			
		NH_3	1.49	6.55			
		SO_2	4.55	19.93			
		PM	2.53	11.10			
		PM_{10}	2.53	11.10			
		$PM_{2.5}$	2.53	11.10			

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.

(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
Cl_2 - chlorine
COS - carbonyl sulfide
CS_2 - carbon disulfide
H_2S - hydrogen sulfide
H_2SO_4 - sulfuric acid
NH_3 - ammonia
TRS - total reduced sulfur
O_3 - ozone
HCN - hydrogen cyanide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.

(6) Planned MSS VOC, NO_x, CO, SO_2, PM_{10}, H_2S, and Benzene allowable emissions are NOT included in the Normal Operations Emission Caps.
(7) Beginning January 1, 2013, MSS emissions shall be based on a rolling 12-month period.
(8) Benzene MSS allowables are included in the VOC allowables.
(9) Ammonia fugitive allowable emissions are specified by EPN.
(10) These emission caps have been carried forward from the flexible permit and do not include MSS emissions. The caps have been lowered to equal the sum of the normal operation individual limits and subcaps. The caps do not include emissions from EPN B-010, incorporated by reference from Standard Permit 83511.

Major NSR Summary Table

Permit Numbers: 141533/PSDTX1017M1					Issuance Date: 08/31/2016		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
Normal Operations Emission Cap (9)	Fugitives (5), Storage Tanks, and Wastewater	Benzene	1.91	4.36	7, 8	6, 7, 9	
Normal Operations Emission Cap (9)	Fugitives (5), Storage Tanks, and Wastewater	H_2S	0.14	0.32	7, 8	7, 9	

Major NSR Summary Table

Permit Numbers: 141533/PSDTX1017M1					Issuance Date: 08/31/2016		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
S-031, S-032, S-034, S-035, S-037, S-038, S-040, S-041, S-042, S-043, S-100, S-101, S-102, S-108, S-114, S-115, S-116, S-127, S-128, S-129, S-200, S-201, S-206, S-207, S-208, S-209, S-210, S-217, S-218, S-219, S-300, S-301, S-302, S-303, S-304, S-305, S-306, S-308, S-309, S-310, S-311, S-312, S-313, S-314, S-315, S-317, S-318, S-331, S-332, S-333, S-334, S-335, S-336, S-337, S-338, S-339, S-340, S-354, S-401, S-402, S-3201, S-3202	Subcaps for Storage Tanks	VOC	72.74	118.03	4, 6	4, 6, 9	4

Major NSR Summary Table

Permit Numbers: 141533/PSDTX1017M1					Issuance Date: 08/31/2016		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
V-F-660N, V-F-680W V-F-800E, V-F-800W, V-F-820, V-F-830E, V-F-830N, V-F-830S, V-F-830W, V-F-850, V-F-850N, V-F-850S, V-F-2600N, V-F-ROSE	VOC and NH_3 Subcap for Equipment Fugitives (5)	VOC	6.57	28.76	7, 8	7, 9	
		NH_3	<0.01	<0.01			
S-311	Storage Tank 311	VOC	1.24	1.53		4, 9	

Major NSR Summary Table

Permit Numbers: 141533/PSDTX1017M1					Issuance Date: 08/31/2016		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Spec. Cond.**	**Spec. Cond.**	**Spec. Cond.**
Planned Maintenance, Startup, and Shutdown (MSS) Emission Limitations (7)							
Control devices, Fugitives (5) and Storage Tanks		VOC	4,573.82	24.34	11, 12, 13, 15, 16	10, 13, 14, 15, 16, 17	
		NO_x	51.22	1.37			
		CO	31.11	0.83			
		SO_2	6.66	0.50			
		PM	3.14	0.08			
		PM_{10}	3.14	0.08			
		$PM_{2.5}$	3.14	0.08			
		H_2S (6)	0.30	0.01			
		Benzene (6) (8)	83.71	0.25			

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide

PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
H_2S - hydrogen sulfide
NH_3 - ammonia

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(6) Planned MSS H_2S and Benzene allowable emissions are NOT included in the Normal Operations Emission Caps.
(7) MSS emissions shall be based on a rolling 12-month period.
(8) Benzene MSS allowables are included in the VOC allowables.
(9) These emission caps have been carried forward from the flexible permit and do not include MSS emissions. The caps have been lowered to equal the sum of the normal operation individual limits and subcaps.

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Diamond Shamrock Refining Company, L.P.
Authorizing the Construction and Operation of
Diamond Shamrock Refining Valero
Located at **Three Rivers, Live Oak County, Texas**
Latitude 28° 27' 24" Longitude −98° 11' 4"

Permit: 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1
Revision Date: October 25, 2017
Expiration Date: September 16, 2025

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

SPECIAL CONDITIONS

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

Emission Limitations

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

Federal Applicability

2. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources (New Source Performance Standards [NSPS]) in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) promulgated for:

   A. Small Industrial, Commercial, and Institutional Steam Generating Units, Subparts A and Db.

   B. Petroleum Refineries, Subparts A and J.

   C. Equipment Leaks of Volatile Organic Compounds (VOC) in Petroleum Refineries, Subparts A and GGG.

   D. The VOC Emissions from Petroleum Refinery Wastewater Systems, Subparts A and QQQ.

   E. Storage Tanks in 40 CFR Part 60, Subparts A and Kb. **(08/16)**

   F. Fluid Catalytic Cracking Units (FCCU) in 40 CFR Part 60, Subpart J: 60.102(a)(1), 60.102(a)(2), 60.103(a), 60.104(b)(1), and 60.104(c). **(4/16)**

   G. No. 1 and No. 2 SRU in 40 CFR Part 60, Subpart J: 60.104(a)(2)(i). **(4/16)**

   H. Flares in 40 CFR Part 60, Subpart A and Subpart Ja. The affected flares are the FCCU Flare (EPN FL-003), HCU Flare (EPN FL-004), No. 2 West Plant/DOT Flare (EPN FL-006) and the No. 1 West Plant/Crude Flare (EPN FL-501). **(10/16)**

   I. Fuel gas combustion devices in 40 CFR Part 60, Subpart J – all heaters and boilers. **(4/16)**

3. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) promulgated for Benzene Waste Operations in 40 CFR Part 61, Subparts A and FF.

4. The facilities shall comply with all applicable requirements of Title 30 Texas Administrative Code §§ 113.110, 113.120, and 113.340 (30 TAC §§ 113.110, 113.120, and 113.340), including the referenced requirements contained in 40 CFR Part 63, Subparts A, F, G, H, CC, and UUU.

Storage of VOC

5. These are the requirements for storage of VOC materials.

A. The control requirements specified in paragraphs B through E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.5 pound per square inch absolute (psia) at the maximum expected operating temperature or (2) to storage tanks smaller than 25,000 gallons.

B. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof (IFR): (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal. Installation of equivalent control requires prior review and approval by the TCEQ Executive Director.

C. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an IFR tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

D. For any tank equipped with a floating roof, the holder of this permit shall follow 40 CFR § 60.113b, Testing and Procedures, to verify seal integrity. Additionally, the permit holder shall follow 40 CFR § 60.115b, Reporting and Recordkeeping Requirements, to provide records of the dates seals were inspected, seal integrity, and corrective actions taken.

E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute (API) Code 650 or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

F. Uninsulated tank exterior surfaces exposed to the sun shall be white, aluminum, or an equivalent light color, except where a dark color is necessary to help the tank absorb or retain heat in order to maintain the material in the tank in a liquid state.

G. The holder of this permit shall maintain a monthly emissions record which describes calculated emissions of VOC from all storage tanks and loading operations. The record shall include tank or loading point identification number, control method used, tank or vessel capacity in gallons or barrels, name of the material stored or loaded, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures. These records shall be maintained at the plant site for at least two years and be made available to representatives of the TCEQ upon request. For compliance demonstration purposes, the holder of this permit may use the meteorological data contained in AP-42, dated March 1998, or later version.

H. For the purposes of this permit, emissions for tanks shall be calculated using: (a) AP-42 “Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids” dated March 1998 and (b) the TCEQ publication titled “Technical Guidance Package for Chemical Sources - Storage Tanks” dated February 1995.

Combustion Controls

6. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration of greater than one percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

7. Flares shall be designed and operated in accordance with the following requirements:

   A. The combined refinery fuel natural gas and waste stream to the flare shall meet the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions. Compliance with this condition shall be demonstrated by monitoring required in Section D below. Flare testing per 40 CFR § 60.18(f) may be requested by the TCEQ Regional Office, in addition to NSPS or federal requirements, to demonstrate compliance with this condition. Testing to confirm the heating value (Btu per standard cubic feet) may be requested by the TCEQ Regional Office to demonstrate compliance with this condition.

   B. All flares including the FCCU Flare (Emission Point Number [EPN]: FL-003) , HCU Flare (EPN: FL-004), No. 1 West Plant/Crude Flare (EPN: FL-501) and the No. 2 West Plant/DOT Flare (EPN: FL-006) shall be operated with a pilot flame present at all times and have a constant pilot flame or an automatic re-ignition system except during activities that are exempt under 30 TAC Chapter 101. The pilot flame shall be monitored by a thermocouple, an infrared monitor or an ultraviolet monitor. If the pilot flame is extinguished, proper 30 TAC Chapter 101 procedures shall be followed for this incident. **(10/16)**

   C. The flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours and hours as exempted by 30 TAC § 111.111 to allow visible emission for incidents exempted under 101. This shall be ensured by the use of steam assist to the flare (for steam-assisted flares). The permit holder shall ensure proper flare operation through monitoring by Section D below.

   D. The holder of this permit shall install a continuous flow monitor that provides a record of the vent stream flow to the FCCU Flare, HCU Flare, No. 1 West Plant/Crude Flare, and No. 2 West Plant/DOT Flare. The flow monitor sensor should be installed in the vent stream such that the total vent stream to the flare is measured. The average hourly values of the flow shall be recorded and maintained electronically. The holder of this permit shall provide the daily average flow rate (24-hour average) to each flare and the hourly average flow rates during conditions subject to 30 TAC Chapter 101, Subchapter F. Flow rate fluctuations due to monitor malfunctions or calibrations are not required to be used in determining compliance. Records of the flows shall be maintained for a period of two years and be made available to the Executive Director of the TCEQ upon request. **(PSD)**

   E. Systems which convey waste gas to plant flares for disposal shall comply with the requirements in Special Condition No. 57 in routine waste gas control operations.

Operating Parameters and Conditions

8. The benzene content of the finished gasoline products shall not exceed 4.5 percent by weight. Liquid chromatography or equivalent methods shall be used to determine the benzene concentration in gasoline products. The benzene content shall be determined at least once per quarter and records kept.

9. All combustion sources covered under this permit shall be fired with either sweet natural gas as defined in 30 TAC Chapter 101 or with refinery fuel gas containing no more than 0.10 grain total sulfur expressed as H_2S per dry standard cubic feet (dscf) on a three-hour average basis. **(PSD)**

10. There shall be no visible emissions from the No. 1 SRU Incinerator Vent (EPN V-008), or the No. 2 SRU Incinerator Vent (EPN V-009) except for those periods described in 30 TAC § 111.111(a).

Piping, Valves, Connectors, Pumps, and Compressors in contact with VOC

11. Special Condition Number 12 (28VHP) will apply to all process unit areas except the Light Ends Unit (LEU) 3900. The LEU is and will continue to be monitored with the 28MID leak detection and repair program. The holder of this permit shall compile a list for all equipment (components) in contact with VOC excluded from the monitoring conditions.

12. 28VHP program: Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

    A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least five kilopascals (0.725 psi) below ambient pressure.

    B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), API, American Society of Mechanical Engineers (ASME), or equivalent codes.

    C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

    D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

    E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

    Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b)].

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shut down or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

13. Piping, Valves, Connectors, Pumps, and Compressors in contact with VOC - 28MID program for Light Ends Unit (LEU) 3900

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment.

A. These conditions shall not apply (1) where the VOCs have an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least five kilopascals (0.725 psi) below ambient pressure.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b).

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. All new and replacement pumps and compressors shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump and compressor seals emitting VOC shall be monitored with an approved gas analyzer at least quarterly.

H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. The TCEQ Executive Director, at her discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

I. In lieu of the monitoring frequency specified in Paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent. Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

J. The percent of valves leaking used in paragraph I shall be determined using the following formula:

$$(Vl + Vs) \times 100/Vt = Vp$$

Where:

Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.

Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe-to-monitor valves.

Vp = the percentage of leaking valves for the monitoring period.

K. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken. Records of physical inspections are not required unless a leak is detected.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS or NESHAPS, and does not constitute approval of alternative standards for these regulations.

Sulfur Recovery Units (SRUs)

14. The No. 1 SRU Incinerator Vent (EPN V-008) and the No. 2 SRU Incinerator Vent (EPN V-009) shall be operated with not less than 1.5 percent oxygen (O_2) in the incinerator stack and not less than 1,200°F incinerator firebox temperature on an hourly average basis. The incinerator firebox exit temperature and incinerator stack O_2 level shall be continuously monitored and recorded on an hourly average basis.

15. The minimum sulfur recovery efficiency for the No. 1 and No. 2 Sulfur Plants shall be 99.8 percent. The sulfur recovery efficiency shall be determined by calculation as follows:

$$\text{Efficiency} = \frac{(\text{S recovered})*(100)}{(\text{S acid gas})}$$

Where:

Efficiency = sulfur recovery efficiency, percent

S recovered = S produced, Long tons per day (LTPD)

S acid gas = (S recovered plus S stack), LTPD

S stack = sulfur in the incinerator stack, LTPD

The average sulfur emission reduction efficiency (sulfur recovery efficiency) shall be demonstrated for each 24-hour period by a mass balance calculation using data obtained from the incinerator stack sulfur oxide (SO_2) monitor, sulfur production records, and other process data. The daily sulfur recovery efficiency shall be calculated on a monthly basis. **(PSD)**

16. If the total sulfur recovered from the combined SRU Trains (SRU No. 1 and SRU No. 2) should exceed 200 LTPD, the holder of this permit shall document and maintain records of the redundancy, except as provided in Special Condition No. 19 or “excess capacity” available in the SRU complex (SRU No. 1 and SRU No. 2) for periods of operation exceeding 200 LTPD. At no time during normal operation when the total sulfur recovered exceeds 200 LTPD shall the excess capacity be less than 75 percent redundancy (to help should an SRU go off-line, etc). For periods of operation above 200 LTPD, the holder of this permit shall document the availability of the redundancy or excess capacity. Records for periods of operation above 200 LTPD and the redundancy available shall be maintained for a period of two years and made available to representatives of the TCEQ upon request. **(PSD)**

17. All acid gas streams from the amine regeneration units, and sour water stripper overheads, containing H_2S shall be routed to the SRUs or other process units under normal operating

conditions. Only under emergency conditions shall the vent streams be sent to the flare, and such flaring events are not authorized by this permit and shall be handled and reported according to the requirements of 30 TAC Chapter 101 Subchapter F. It is not permissible under any conditions to vent acid gases directly to the atmosphere. Any other exception to this condition requires prior review and approval by the TCEQ Executive Director, and such exceptions may be subject to strict monitoring requirements. **(PSD)**

18. Sour gas emissions from the sulfur pits, sulfur storage, and sulfur loading operations shall be collected by a vapor collection system and routed either back to the SRU thermal reactor or to the SRU tail gas incinerator (TGI). The flare may be used on an emergency basis only. **(PSD)**

19. Records shall be maintained for all SRU, TGU, and TGI downtime when acid gas is flared. These records shall include the date and duration of downtime, amount of bypassed acid gas flared, the cause of the downtime, and corrective action taken. These records shall be maintained on-site for a period of two years and made available to representatives of the TCEQ upon request. **(PSD)**

20. During the period in which the No. 2 SRU is brought on line and the No. 1 SRU has either not been revamped or is shutdown for construction, the following actions should be taken in the event of a shutdown of a sulfur plant:

    A. Reroute the maximum amount of the acid gas to the operating No. 1 SRU, and the No. 2 SRU.

    B. Reduce operation of the sour water strippers and accumulate sour water in tankage for future processing.

    C. Curtail operation of upstream units until continuous acid gas flaring is eliminated. **(PSD)**

<u>Cooling Towers</u>

21. Cooling Tower Monitoring Requirements:

    A. This subsection shall apply to the East Plant Cooling Tower (F-2810), West Plant Cooling Tower No. 1 (F-0670) and West Plant Cooling Tower No. 2 (F-3670). The cooling water shall be monitored monthly for VOC leakage from heat exchangers in accordance with the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or another air stripping method approved by the TCEQ Executive Director.

    A total strippable VOC concentration (as methane) in the stripping gas of 6.2 ppmv or greater indicates an equipment leak. Equipment shall be maintained so as to minimize VOC emissions into the cooling water. Leaking equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs.

    VOC concentrations above 62 ppmv in the stripped air from the cooling tower are not subject to extensions for delay of repair consistent with those periods specified under 40 CFR 63.654(f). VOC concentrations above 62 ppmv in the stripped air from the cooling tower are also not subject to extensions for delay of repair under this permit condition. The results of the monitoring and maintenance efforts shall be recorded.

B. This subsection shall apply to the East Plant Cooling Tower (F-2810) only. The East Plant Cooling Tower shall be analyzed for particulate emissions. Cooling water shall be sampled at least once per week for total dissolved solids (TDS). Particulate emission rates shall be calculated using the measured TDS, the design drift factor and the cooling water circulation rate. Emission records shall be updated. This monitoring requirement shall take effect 180 days after permit renewal.

The permit holder may reduce the frequency of sampling for TDS by establishing a correlation between TDS and conductivity for the cooling tower as follows:

(1) For a minimum period of four weeks the cooling water shall be sampled once a week for analysis of total dissolved solids (TDS) and conductivity. The analysis method for conductivity shall be ASTM D1125-95A or SM2510. The data from the initial side-by-side measurements of TDS and conductivity shall be graphed and a slope calculated. A safety factor of two standard deviations will be applied to the slope for data quality expectation. A report including the weekly results, a data assessment and correlation of TDS to conductivity will be maintained on-site.

(2) Following completion of the report, the cooling water shall be sampled daily for conductivity and the result converted to TDS from the established correlation.

(3) The correlation will be rechecked annually with a single cooling water sample analysis for TDS and conductivity. The measured TDS value shall be compared to that estimated using the measured conductivity and the established correlation. If the calculated TDS value falls either above or below two standard deviations of the calculated slope, a new correlation effort shall be conducted in accordance with paragraph (1) above.

AVO Monitoring Program

22. Piping, Valves, Pumps, and Compressors in H_2S, SO_2, or Ammonia (NH_3) Service

A. Audio, olfactory, and visual checks for H_2S, SO_2, and NH_3 leaks within the No. 1 and No. 2 Sulfur Plants, Amine Regenerators, Sour Water Stripper, and process streams that have greater than 2 percent H_2S by weight shall be made once per shift.

B. Immediately but no later than one hour upon detection of a leak, plant personnel shall take the following actions:

(1) Isolate the leak.

(2) Commence repair or replacement of the leaking component.

(3) Use a leak collection or containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible. **(PSD)**

Loading of VOC

23. The permit holder shall not allow a gasoline tank truck to be loaded at this facility unless the tank truck being loaded has passed a leak-tightness test within the past 12 months using the methods described in NSPS, Subpart XX. Each tank truck shall display or carry identification which:

A. Shows the date the tank truck last passed the leak-tightness test required by this special condition.

B. Shows the identification number of the tank truck.

Reporting and recordkeeping of this certification shall be conducted in accordance with 40 CFR § 60.505. Tank truck documentation may be kept at an alternate location, such as, the company headquarters in San Antonio.

24. When loading materials with a vapor pressure greater than or equal to 0.5 psia at maximum loading temperature, the loading emissions shall be routed to the vapor combustion unit (VCU) (EPN VCU-1). The VCU shall meet the requirements of MACT Subpart R for gasoline loading (emissions of VOC no greater than 10 milligrams/liter of gasoline loaded) and the requirements of MACT Subpart G for benzene loading (no less than 98 percent efficiency in destruction of the carbon compounds captured by the collection system). **(PSD)**

25. For the purposes of this permit, emissions for loading operations shall be calculated using: AP-42, Fifth Edition, Equation 1 (Section 5.2.2.1.1, Loading Losses). Loading emissions may be credited with a 98.7 percent collection efficiency for vessels leak-checked annually. The collection efficiency is 100 per cent for railcar loading if the railcars are pressure tested at least once annually and are associated with welded or bolted (not quick-connect) connections

26. Operation without visible liquid leaks or spills shall be maintained at all loading/unloading facilities, regardless of vapor pressure. This does not apply to momentary dripping associated with the initial connection or disconnection of fittings. Sustained dripping from fittings during loading/unloading operations is not permitted. Any liquid spill that occurs during loading/unloading activities that results in emissions that exceed a reportable quantity shall be reported pursuant to 30 TAC §§ 101.201 or 101.211 and shall be cleaned up immediately to minimize air emissions.

<u>Fluidized Catalytic Cracking Unit</u>

27. The maximum allowable concentration of the following pollutants in the FCCU vent gas scrubber stack shall not exceed the following:

Carbon Monoxide (CO)	500 ppmvd @ 0% O_2, 1 –hour block avg. **(4/16)**
VOC	10 ppmv

The emissions from the FCCU stack shall not exceed 1.0 pound (lb) of particulate matter (PM) per 1,000 lb of coke burn-off (with PM emissions measured per the EPA Method 5B), measured as a one-hour average over three performance test runs. **(10/16)**

Valero will comply with NO_X concentration emission limits of 19 ppmvd measured as a 365-day rolling average and 38 ppmvd as a 7-day rolling average, both at 0 percent O_2. **(4/16)**

The SO_2 emissions from the wet gas scrubber shall not exceed 25 ppmvd measured as a 365-day rolling average and 50 ppmvd as a 7-day rolling average, both at 0 percent O_2. **(4/16)**

Emissions of Hydrogen Cyanide (HCN) from the FCCU vent gas scrubber stack (EPN V-010) shall not exceed 0.65 pounds per 1,000 pounds of coke burn-off or the maximum rate determined from the individual test runs during the most recent stack test whichever is higher. **(10/17)**

The permit holder shall maintain an emissions record which includes calculated emissions of HCN from the FCCU during the previous calendar month and the past consecutive 12 month period. **(10/17)**

For purpose of estimating emissions, the maximum and average coke burn-off rate (tons per hour) and hours of operation shall be recorded daily and shall be maintained on-site. Coke burn-off rate shall be determined using the equation specified in 40 CFR Part 60.106(b)(3). These records shall be maintained for a minimum of five years and made available to representatives of the TCEQ or local program upon request. **(10/17)**

Monitoring devices used to determine the coke burn rate per NSPS J 60.106 shall reduce readings to an averaging period of 6 minutes or less and record it at that frequency. Monitors shall be installed and calibrated at least annually, and maintained according to the manufacturer's specifications. **(10/17)**

Quality assured (or valid) data must be generated when the FCCU is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the FCCU operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(10/17)**

28. The opacity of emissions from the FCCU stack shall not exceed 20 percent averaged over a six-minute period, as determined by an opacity monitoring device or a trained observer, except as provided for in 30 TAC § 111.111(a)(1)(E). **(PSD)**

29. The Company shall conduct monitoring and recordkeeping in accordance with the Alternate Monitoring Plan (AMP) associated with the FCCU Scrubber (EPN V-010) as approved by EPA Region 6 in a letter dated August 31, 2012. In accordance with the approved AMP, the ratio of the "total liquid flow rate to the wet gas scrubber" to the "total gas flow rate to the wet scrubber" shall not fall below 0.00138. Additionally, the minimum water pressure to the nozzles in the quench/spray tower and the minimum pressure drop across the Agglo Filtering Modules shall be no less than 48.92 psig and 9.43 inches of water respectively These key operating parameter limits are set as 3-hour rolling averages.

Hydrogen Fluoride (HF) Alkylation

30. The HF detection paint shall be used on all potential fugitive sources and possible leak sites. Locations with HF detection paint shall be inspected. If leaks are detected, corrective action shall be taken immediately as described in Special Condition No. 34. If there is a problem with HF sensitive paint availability, the holder of this permit shall notify the TCEQ Corpus Christi Regional Office and request additional time for painting or request alternate leak detection methods pending availability of the HF sensitive paint.

31. In the event of an HF release which may have the potential for off-site impacts, the holder of this permit shall implement the procedures outlined in the emergency response plans.

32. There shall be no overhead work in the HF process unit where equipment is being lifted over unprotected vessels or lines without first completing a safe work checklist in accordance with Occupational Safety and Health Administration Process Safety Management rules. The safe work checklist shall be used to ensure that every effort is made to minimize the potential for an accident that would result in loss of integrity of HF-containing equipment.

33. The holder of this permit is required to notify the TCEQ Corpus Christi Regional Office no less than eight hours prior to conducting work over unprotected vessels or lines containing more than five percent by weight HF.

34. AVO program for components in HF service

A. The AVO checks for HF leaks within the operating area shall be made once per shift (once every 12 hours) for streams in HF service with greater than 0.5 percent HF.

B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take one or more of the following actions:

(1) Stop the leak by taking the equipment out of service or bypass the equipment so that it is no longer in service.

(2) Isolate the leak.

(3) Commence repair or replacement of the leaking component.

(4) If the leak cannot be repaired within six hours, the holder of this permit shall use a leak collection or containment system to prevent or minimize the leak or the facility shall be shut down until repair or replacement can be made if immediate repair is not possible. Containment may include adjustment in bolts, packing glands, and pumps or compressor seals

Records shall be maintained at the plant site of all repairs and replacements made due to leaks. A reminder that visual checks for HF leaks need be made once per shift shall be included in the operator manual. These records shall be made available to representatives of the TCEQ upon request.

35. To allow for remote control of fire monitor stations around the HF area, and to allow for additional surveillance, surveillance cameras shall be maintained and linked to closed circuit television monitors in the main control room.

Initial Determination of Compliance

36. Sampling ports and platform(s) shall be incorporated into the design of the FCCU Scrubber Vent (EPN V-010), according to the specifications set forth in the attachment entitled “Chapter 2, Stack Sampling Facilities.” Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from EPN V-010, as appropriate. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.
(3) Name of firm conducting sampling.
(4) Type of sampling equipment to be used.
(5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or the EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division in Austin. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Regional Director.

B. Air contaminants emitted from EPN V-010, to be tested for include (but are not limited to) CO, NO_x, SO_2, VOC, PM, HCN and H_2SO_4. **(10/17)**

C. Sampling shall be conducted within 120 days of startup of the FCCU Wet Gas Scrubber, and at such other times as required by the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. The wet gas scrubber (EPN V-010) shall be stack tested for HCN at least every 5 years. **(10/17)**

D. The unit shall operate at maximum feed rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the unit is unable to operate at maximum rates during testing, then future feed rates may be limited to the rates established during testing. Additional stack testing may be required if higher feed rates are achieved.

E. Copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.
One copy to the TCEQ Office of Air, Air Permits Division in Austin. **(PSD)**

37. Sampling ports and platform(s) shall be incorporated into the design of the No. 1 SRU Incinerator Vent Stack (EPN V-008) and No. 2 SRU Incinerator Vent Stack (EPN V-009) according to the specifications set forth in the attachment entitled “Chapter 2, Stack Sampling Facilities.” Alternate sampling facility designs may be submitted for approval by the TCEQ Corpus Christi Regional Director.

The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stack of the No. 1 Sulfur Plant Vent (EPN V-008), and the No. 2 Sulfur Plant Vent (EPN V-009). The holder of this permit is responsible for providing sampling and

testing facilities and conducting the sampling and testing operations at his expense.

A. The TCEQ Corpus Christi Regional Office shall be contacted as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting.

The notice shall include:

(1) Date for pretest meeting.
(2) Date sampling will occur.
(3) Name of firm conducting sampling.
(4) Type of sampling equipment to be used.
(5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Corpus Christi Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Air, Air Permits Division in Austin. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Regional Director.

B. Air contaminants emitted from each EPN to be tested for include (but are not limited to):

EPN V-008: SO_2

EPN V-009: SO_2

C. For the SRU Vents V-008 and V-009, sampling shall occur within 120 days after initial start-up or modification of the facilities. Sampling shall also occur at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Corpus Christi Regional Office.

D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rates shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

E. Two copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Corpus Christi Regional Office.
One copy to the TCEQ Office of Air, Air Permits Division in Austin. **(PSD)**

Continuous Determination of Compliance

38. The holder of this permit shall install and maintain a continuous H_2S monitoring system in a representative location in the fuel gas system common to the affected combustion sources within this permit in accordance with the fuel sulfur monitoring requirements of 40 CFR § 60.105. **(PSD)**

39. The holder of this permit shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentrations of the following compounds from the indicated sources:

EPN	Source	Pollutants
H-028	No. 1 Crude Charge Heater (100-H1)	NO_x, O_2, and CO
H-030	No. 2 Reformer Charge Heaters (H201/203/204)	NO_x, O_2, and CO
H-032	No. 2 Reformer Charge Heater (H202)	NO_x, O_2, and CO
H-036	No. 2 Crude Charge Heater (100-H2)	NO_x and CO
V-008	No. 1 SRU Incinerator	SO_2 and O_2
V-009	No. 2 SRU Incinerator	SO_2 and O_2
V-010	FCCU Scrubber Vent	NO_x, O_2, SO_2, and CO

For the No. 1 and No. 2 SRU Incinerators, temperature monitors shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ±2 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

The holder of this permit shall install, maintain, and operate a CEMS to measure and record the concentrations of NO_x and O_2 or carbon dioxide (CO_2) at the exhaust stack of the BTX Boiler (EPN B-007). The monitoring system shall meet the requirements provided in the *Requirements for CEMS* section of this permit. **(PSD)**

40. Heater/Boiler CEMS Requirements **(4/16)**

The following sources will have a NOx CEMS installed and monitored by December 31, 2011. The maximum allowable limit in lb/MMBtu for the following heaters and boilers shall not be exceeded on a 365-day rolling average basis:

EPN	**Source**	**Limit (lb/MMBtu)**
H-028	No. 1 Crude Charge Heater (100-H1)	0.055
H-036	No. 2 Crude Charge Heater (100-H2)	0.055

EPN	Source	Limit (lb/MMBtu)
B-010	BTX Boiler (54F-2)	0.015
B-007	BTX Boiler (54F-1)	0.055
H-016	Vacuum Unit Charge Heater (H1401)	0.035
H-030*	No. 2 Reformer Charge Heaters (H201/203/204)	0.060
H-032*	No. 2 Reformer Charge Heater (H202)	0.060

The permit holder must conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on each CEMS at least once every three (3) years. The permit holder must also conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed. **(4/16)**

*Heaters H-030 and H-032 are an exception to this requirement and are not required to conduct a RATA every three years **(4/16)**

41. The following sources, without CEMS, shall conduct a performance test to demonstrate compliance with the NO_x limitations by December 31, 2011. The permit holder shall use Method 7E or an approved alternative test method to conduct the performance test for NO_x emissions. The following limits shall not be exceeded on a 3-hour average basis determined during the performance test.

EPN	Source	Limit (lb/MMBtu)
H-034	HCU Recycle Heater (H1401)	0.050
H-035	HCU Debutanizer Reboiler (H1402)	0.040
H-020	Isostripper Reboiler (440-H1)	0.040
H-037	HDUCharge Heater 2 (H101)	0.055
H-038	HDU Reboiler Heater 2 (H102)	0.040
H-033	No.2 Reformer Stab. Reboiler (H205)	0.040
H-044	Reformate Splitter Heater (54-H102)	0.035
H-021	ROSE DAO Heater (160-H1)	0.047
H-012	H-505A, #1 REFORMER	0.035
H-018	HCU Fractionator Heater (H1501A)	0.040
H-019	HCU Fractionator Heater (H1501B)	0.040
H-046	Fractionator Feed Heater (H-28002)	0.045

The following sources will have the following limits and are not required to have NO_x CEMS installed or a stack test conducted. **(4/16)**

EPN	Source	Limit (lb/MMBtu)
B-004	6F1A, Package Boiler	0.175
B-004	6F1B, Package Boiler	0.175
B-006	East Plant Boiler (6-F2)	0.120
H-014	Crude Charge Heater 3 (H1102)	0.065
H-041	DOT H_2 Recycle Furnace (F2201)	0.070
H-043	Reformate Splitter Heater (54-H101)	0.060

Requirements for CEMS

42. CEMS requirements:

A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specifications Nos. 1 through 7, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met.

B. The system shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in 40 CFR Part 60, Appendix B or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor installed on a source subject to the provisions of NSPS shall be quality-assured as required by the applicable provisions in 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2 except for the FCCU SO_2 monitor. This monitor shall comply with this condition when the FCCU becomes subject to NSPS Subpart J for SO_2 as explained in Special Condition No. 27.

Emission monitors installed on sources not subject to NSPS or not subject to Appendix F will comply with the following:

(1) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

(2) The system shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All cylinder gas audit exceedances of ±15 percent accuracy and any CEMS downtime in excess of 24 hours shall be reported to the TCEQ Corpus Christi Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Corpus Christi Regional Director.

C. The monitoring data shall be reduced to hourly average concentrations at least once every 24 hours, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable ER in lb/hr at least once per month.

D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit, as appropriate.

E. For NSPS sources subject to Appendix F, the TCEQ Corpus Christi Regional Office shall be notified at least 30 days prior to each annual relative accuracy testing audit (RATA) in order to provide them the opportunity to observe the testing. **(PSD)**

F. This paragraph applies to the NOx, SO_2 and O_2 CEMS for V-010 and for CEMs on heaters and boilers listed in Special Condition 39 and 40. In addition to the requirements of Special Condition 42.A-E., the CEMS shall be installed, certified, calibrated, maintained and operated in accordance with the provisions of 40 CFR §60.13 which are applicable only to CEMs (excluding those provisions applicable only to continuous opacity monitoring systems) and Part 60, Appendices A and F, and the applicable performance specification test of 40 CFR Part 60, Appendix B. With respect to 40 CFR Part 60 Appendix F, in lieu of the requirements of 40 CFR Part 60, Appendix F §§5.1.1, 5.1.3 and 5.1.4, the source must conduct either a RAA or a RATA on each CEMS at least once every three (3) years. The source must also conduct CGA each calendar quarter during which a RAA or a RATA is not performed. **(10/17)**

43. The CEMS reports required by NSPS or NESHAPs reports shall be submitted not less than semiannually to the TCEQ. At a minimum, each excess report shall contain:

A. Reporting of all episodes of CEMS downtime if it is not corrected within 24 hours.

B. Identification of reasons for CEMS downtime if not corrected within 24 hours as well as a description of all corrective and preventative actions taken. **(PSD)**

Emission Limit Compliance Recordkeeping (for normal operations)

44. Recordkeeping programs for those facilities authorized and covered by this permit shall be established and maintained such that the ability to demonstrate compliance with all authorized

individual permit limits and emission subcaps (short-term [lb/hr] and annual [TPY]) is ensured. Records of all compliance testing, CEM results, and operational parameters (including short-term and annual production rates, fuel gas flow rates, etc.) necessary to demonstrate compliance with the emission limits shall be maintained on-site, and made available to representatives of the TCEQ upon request.

Demonstration of compliance shall be provided to the TCEQ Corpus Christi Regional Office upon request based on the methodologies used in the latest permit application or as presented below.

Storage Tanks - As specified in Special Condition No. 5, short-term ERs shall be based on the maximum expected pumping rate (fixed-roof) and the higher of the pumping rate or withdrawal rate (IFR and EFR).

Product Loading - As provided in Special Conditions 5, 25 and 45. The name of the material loaded and the throughput of that material for the previous month and year to date for each loading rack. Short term emission rates will be based on the maximum expected loading rate for each loading rack. **(PSD)**

Equipment Piping Component Fugitives - Component counts, emission factors, and reduction credits specified in the permit application for the 28VHP, 28MID, and AVO maintenance programs.

Boilers/Process Heaters - CEM information if such a device is installed. The most recent stack test results if a CEM is not installed. If no stack sampling is required, use the proper emission factor for the specific unit from the latest permit application and the measured Btu value and flow rate of the fuel gas as available.

SRU/FCCU Process Vents - CEM information. Use the most recent stack test for those compounds which are not subject to CEM requirements. If no stack sampling is required, use the proper emission factor for the specific unit from the permit application. Flue gas flow rates shall be determined using available monitoring data, best engineering estimates, or maximum flow rates represented in the latest permit application.

Flares - As provided in Special Condition Number 7D.

Compliance with the annual emission limitations of this permit shall be based on a 12-month rolling average of emissions. **(PSD)**

Compliance Assurance Monitoring (CAM)

45. The Loading Rack VCU, EPN VCU-1, shall meet the following requirements:

A. The combustion zone temperature shall be monitored continuously when waste gas is directed to it. The temperature measurement device shall reduce the temperature readings to an averaging period of 15 minutes or less and record it at that frequency.

B. A temperature monitor shall be installed, calibrated at least annually, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of ±2 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

C. The temperature in or immediately downstream of the combustion chamber shall be maintained above 927°F when waste gas is directed to it.

D. Quality-assured (or valid) data must be generated when the VCU is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the VCU operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

46. Capture Systems for the Loading Rack VCU-1 and SRU Incinerators V-008 and V-009.

A. If used to control pollutants other than particulate, either:

(1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

(2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device, EPN VCU-1 shall not have a bypass.

C. SRU Incinerators EPNs V-008 and V-009 have bypass lines and shall comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass a control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals or locks prevent flow out the bypass.

A deviation shall be reported if the monitoring or inspections indicate bypass of either control device.

D. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

<u>Maintenance, Startup, and Shutdown Operations</u>

47. This permit authorizes the emissions for the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. This permit also authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: frac tanks, vacuum trucks, portable control devices identified in Special Condition No. 57, and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at

the permanent site facilities listed in Attachment D, and (c) does not operate as a replacement for an existing authorized facility.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the refinery. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

B. the type of planned MSS activity and the reason for the planned activity;

C. the common name or the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

D. the date on which the MSS activity occurred;

E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis except as noted in MAERT Footnotes (6), (7), and (8).

48. Process units and facilities, with the exception of those identified in Special Condition Nos. 51 (related to Floating Roof Tanks), 52 (related to Fixed Roof Tanks), 54 (related to frac or temporary tanks), and activities listed in Attachment A, shall operate in accordance with the following requirements during MSS.

A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC true vapor pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with Paragraph C of this special condition without depressuring or degassing to a control device. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.

B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC true vapor pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device

or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.

C. All liquids from process equipment shall be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids with a VOC partial pressure greater than or equal to 0.044 psia at 68°F shall be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid shall be covered or transferred to a covered vessel within one hour of being drained. After draining is complete, empty open pans may remain in use for housekeeping reasons to collect incidental drips.

D. If the VOC true vapor pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.

The following requirements do not apply to fugitive components, pumps, compressors, and vessels with fixed bed catalyst.

(1) For MSS activities identified in Attachment B, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) (or equivalent) per the site safety procedures.

(2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (PFD's, P&ID's, or Turnaround and Inspection (T&I) plans may be used to demonstrate compliance with the requirement). Documented refinery procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above. If the process equipment is purged with a gas, purge gas must have passed through the control device or controlled recovery system for a sufficient period of time in accordance with the applicable site operating procedures before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition No. 49. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than or equal to 10,000 ppmv or 10 percent of the LEL.

(3) Alternatively, the process equipment may be filled with a liquid with a VOC vapor pressure less than 0.147 psi while venting to control. If it can be verified that the liquid filled the entire process equipment or vessel, no sampling is necessary. If not, the VOC concentration shall be verified to be less than 10,000 ppmv or 10 percent of the LEL using an instrument meeting the requirements of Special Condition No. 49 while purging to control immediately after draining the liquid from the system. The locations and/or identifiers where the liquid enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (PFDs, P&IDs, or T&I Plans may be used to demonstrate compliance with the requirement).

E. Equipment with VOC true vapor pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lbs of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

All instances of venting directly to atmosphere per Special Condition No. 48E must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the work order, shift logs or equivalent for those planned MSS activities identified in Attachment B.

49. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR Part 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas. The calibration gas used and its concentration, and the vapor to be sampled and its approximate response factor (RF), shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:

VOC Concentration = Concentration as read from the instrument*RF

(2) Sampling shall be performed as directed by this permit in lieu of Section 8.3 of Method 21. During sampling, data recording shall not begin until after 2 times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes and the greatest VOC concentration recorded. This VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

(3) If a TVA-1000 series FID analyzer calibrated with methane is used to determine the VOC concentration, a measured concentration of 34,000 ppmv may be considered equivalent to 10,000 ppm as VOC.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) less than release concentration.

Where the release concentration is:

10,000*mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

(1) The detector shall be calibrated monthly with a certified pentane gas standard at 25 percent of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90 percent of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 25 percent of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95 percent of that for pentane.

D. For measuring benzene breakthrough on Carbon Adsorption Systems in Special Condition No. 57.A(4), a portable gas chromatograph using a flame ionization detector or photo ionization detector may be used. Alternatively a photo-ionization detector equipped with a benzene separation tube consistent with manufacturer requirements may be used. The monitor shall have the sensitivity and specificity to quantify low level benzene concentrations. The monitor device shall be calibrated within 24 hours of use with a certified calibration gas containing ~5 ppm benzene. Records of the calibration date/time and calibration result shall be maintained.

50. If the removal of a component for repair or replacement results in an open-ended line or valve, the open ended line is exempt from any NSR permit condition requirement to install a cap, blind

flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

A. a cap, blind flange, plug, or second valve must be installed on the line or valve or demonstrate that the line, valve, component, etc. has been double blocked from the process; or

B. the permit holder shall verify that there is no leakage from the open-ended line or valve. The open-ended line or valve shall be monitored on a weekly basis in accordance with the applicable NSR permit condition for fugitive emission monitoring except that a leak is defined as any VOC reading greater than background. Leaks must be repaired by the end of the next calendar day or a cap, blind flange, plug, or second valve must be installed on the line or valve. The results of this weekly check and any corrective actions taken shall be recorded.

51. This permit authorizes emissions from the storage tanks identified in the attached facility list during planned floating roof landings. Tank floating roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application, except when the VOC vapors below the floating roof are routed to a control device or a controlled recovery system from the time the floating roof is landed until the floating roof is refloated. Tank change of service includes landings to accommodate seasonal RVP spec changes and landings to correct off-spec material that cannot be blended into finished product tanks. Emissions from change of service tank landings shall not exceed 10 tons of VOC in any rolling 12 month period. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.

A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control during this process.

This requirement does not apply if the level is lowered to allow for maintenance that is expected to be completed in less than 24 hours. In that case, the tank must be filled and the roof floated within 24 hours of landing the roof and the evolution documented in accordance with Paragraph E of this condition.

B. If the VOC true vapor pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC true vapor pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

(1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery

system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.

(2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.

(3) A volume equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration. The volume measurement shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition No. 49.

(4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.

(5) If ventilation is to be maintained with emission control, the VOC concentration shall be recorded once an hour.

(6) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC true vapor pressure of the remaining liquid in the tank is less than 0.15 psia.

C. The tank shall not be opened or ventilated without control, except as allowed by either (1) or (2) below until one of the criteria in part D of this condition is satisfied.

(1) Minimize air circulation in the tank vapor space.

(a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.

(b) Access points shall be closed when not in use.

(2) Minimize time and VOC partial pressure.

(a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in Part D.(1) of this condition;

(b) Blowers may be used to move air through the tank without emission control at a rate not to exceed 11,000 cubic feet per minute for no more

than 12 hours. All standing liquid shall be removed from the tank during this period.

(c) Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.

D. The tank shall not be opened except as necessary to set up for degassing and cleaning, or ventilated without control, until either all standing liquid has been removed from the tank or the liquid in the tank has a VOC true vapor pressure less than 0.02 psia. These criteria may be demonstrated in any one of the following ways.

(1) Low VOC true vapor pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC true vapor pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC true vapor pressure may be estimated based on this information and engineering calculations.

(2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:

(a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.

(b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1,000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

(c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1,000 ppmv through the procedure in Special Condition No.49.

(3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs unless the vapor space under the floating roof is routed to a control device during refilling.

F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:

(1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;

(2) the reason for the tank roof landing;

(3) for the purpose of estimating emissions, the date and time of each of the following events:

(a) the roof was initially landed;

(b) all liquid was pumped from the tank to the extent practical;

(c) start and completion of controlled degassing, and total volumetric flow;

(d) all standing liquid was removed from the tank or any transfers of low VOC true vapor pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC true vapor pressure to <0.02 psi;

(e) if there is liquid in the tank, VOC true vapor pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow;

(f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and

(g) tank roof off supporting legs, floating on liquid.

(4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between Events (c) and (g) with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 “Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids” dated November 2006 and the permit application.

52. Fixed roof storage tanks are subject to the requirements of Special Condition Nos. 51.C and 51.D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition Nos. 51.B(1) through 51.B(5) and records maintained per Special Condition Nos. 51.F(3)(c) through 51.F(3)(e), and 51.F(4).

53. The following requirements apply to vacuum and air mover truck operations at this site:

A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC true vapor pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.

B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

(1) Prior to initial use, identify any liquid in the truck. Record the liquid level and document that the VOC true vapor pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC true vapor pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.

(2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

(3) If the vacuum truck exhaust is controlled with a control device other than an engine or oxidizer, VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and as required by Special Condition No. 57, measured using an instrument meeting the requirements of Special Condition No. 49.

(4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.

E. If the VOC true vapor pressure of all the liquids vacuumed into the truck is less than 0.10 psi, this shall be recorded when the truck is unloaded or leaves the plant site and the emissions may be estimated as the maximum potential to emit for a truck in that service as documented in the permit application. The recordkeeping requirements in Paragraphs A through D of this special condition do not apply.

54. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities.

A. Except for labels, logos, etc. not to exceed 15 percent of the tank/vessel total surface area, the exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum effective May 1, 2013. This requirement does not apply to tanks/vessels that only vent to atmosphere when being filled.

B. These tanks/vessels must be covered and equipped with fill pipes that discharge within 6 inches of the tank/vessel bottom.

C. These requirements do not apply to vessels storing less than 25 barrels of liquid that are closed such that the vessel does not vent to atmosphere.

D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC true vapor pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: The TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

E. If the tank/vessel is used to store liquid with VOC true vapor pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.

55. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

56. All permanent facilities must comply with all operating requirements, limits, and representations in the permits identified in Attachment D during planned startup and shutdown unless alternate requirements and limits are identified in this permit. Alternate requirements for emissions from routine emission points are identified below:

A. Combustion units, with the exception of flares, at this site are exempt from NO_x and CO operating requirements identified in special conditions in other NSR permits during planned startup and shutdown if the following criteria are satisfied.

(1) The maximum allowable emission rates in the permit authorizing the facility are not exceeded.

(2) The startup period does not exceed 8 hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 4 hours.

(3) Control devices are started and operating properly when venting a waste gas stream.

B. The limits identified below apply to the operations of the specified facilities during startup and shutdown.

EPN	Source Name	Pollutant/Type	Limit	Duration
V-008	#1 SRU	Temperature	750°F, hourly average	15 hours
		O_2	0.01 percent, hourly average	15 hours
V-009	#2 SRU	Temperature	750°F, hourly average	15 hours
		O_2	0.01 percent, hourly average	15 hours
V-010	FCCU	CO	2,000 ppmv or 766.96 lb/hr	96 hours
		CO	500 ppmvd	

The alternate limits for V-008 and V-009 do not authorize bypassing of the Tail Gas Treatment Units. **(10/16)**

C. A record shall be maintained indicating that the start and end times for each of the activities identified above occur and documentation that the requirements for each have been satisfied.

57. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

Controlled recovery systems identified in this permit shall be directed to an operating refinery process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS).

(1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

(2) The CAS shall be sampled downstream on the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

(a) CAS systems equipped with an upstream liquid scrubber may be sampled once every 12 hours of CAS run time to determine breakthrough.

(b) Sampling frequency may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

(c) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If breakthrough is monitored on the initial sample of the upstream can when the polishing can is put in place, a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 49.

(4) Breakthrough is defined as the highest measured VOC or benzene concentration at or exceeding 100 ppmv or 5 ppmv, respectively, above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 24 hours. In lieu of replacing canisters, the flow of waste gas may be discontinued until the canisters are switched. Sufficient new activated carbon canisters shall be available to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

(7) Liquid scrubbers may be used upstream of carbon canisters to enhance VOC capture provided such systems are closed systems and the spent absorbing solution is discharged into a closed container, vessel, or system.

B. Single Carbon Adsorption or Scrubber System

As an alternative to the requirements in Paragraph A(6) and A(7) a single liquid scrubbing or single carbon adsorption system may be used as a sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be continuously monitored with a CEM. The VOC concentration shall be recorded at least once every 15 minutes when waste gas is directed to the CAS or scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 49 except Special Condition No. 49.C.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background and 2 percent of the system inlet concentration. Inlet concentration must be monitored as well. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

C. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1,400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency. Temperature measurements recorded in continuous strip charts may be used to meet the requirements of this section.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer’s specifications.

The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

(3) As an alternative to the firebox exit temperature and residence time specified in Special Condition No. 57C(1), the thermal oxidizer may be tested to determine the minimum operating temperature and residence time needed to achieve a minimum destruction efficiency of 99 weight percent. The thermal oxidizer must have been stack tested within the past 12 months. Stack VOC concentrations and flow rates shall be measured in accordance with applicable EPA Reference Methods. A copy of the test report shall be maintained with the thermal oxidizer and a summary of the testing results shall be included with the emission calculations.

D. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the period specified in Paragraph D(3) of this condition. VOC shall be measured in accordance with the applicable EPA Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition No. 49 are also acceptable for this documentation.

(3) The engine shall be operated and monitored in accordance with either a or b below.

(a) If the engine is operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller, documentation for each AFR controller that the manufacturer's or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation. The engine must have been stack tested within the past 12 months in accordance with Paragraph D(2) of this condition.

The test period may be extended to 24 months if the engine exhaust is sampled once an hour when waste gas is directed to the engine using a detector meeting the requirements of Special Condition No. 49. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection

system downstream of the engine. The concentrations shall be recorded and the MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background.

(b) If an oxygen sensor-based AFR controller is not used, the engine exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the engine. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 49. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. The engine must have been stack tested within the past 24 months in accordance with Paragraph D(2) of this condition.

E. The plant flare system

(1) The heating value and velocity requirements in 40 CFR § 60.18 shall be satisfied during operations authorized by this permit.

(2) The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, an infrared monitor, or an ultraviolet monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

(3) Each flare shall be equipped with one of the following:

(a) Operation and maintenance of a flare gas recovery system.

(b) A continuous flow monitor and composition analyzer that provides a record of the flare gas flow and composition of either the total VOC or heating value of the flare gas.

The flow monitor and analyzer sample point shall be installed as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour. The flow monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor must be calibrated to manufacturer's specifications; the temperature monitor must be calibrated to within ± 2.0 percent at absolute temperature; the pressure monitor must be calibrated to within ± 5.0 mmHg.

(i) If VOC monitoring is chosen: Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR § 60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).

(ii) If heating value is chosen: The calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot of the gas.

F. A closed loop refrigerated vapor recovery system

(1) The vapor recovery system shall be installed on the facility to be degassed using good engineering practice to ensure air contaminants are flushed from the facility through the refrigerated vapor condensers and back to the facility being degassed. The vapor recovery system and facility being degassed shall be enclosed except as necessary to insure structural integrity (such as roof vents on a floating roof tank).

(2) VOC concentration in vapor being circulated by the system shall be sampled and recorded at least once every 4 hours at the inlet of the condenser unit with an instrument meeting the requirements of Special Condition No. 49.

(3) The quantity of liquid recovered from the tank vapors and the tank pressure shall be monitored and recorded each hour. The liquid recovered must increase with each reading and the tank pressure shall not exceed one inch water pressure while the system is operating.

G. Other control devices approved by the TCEQ through a permit amendment application or a pollution control permit application.

58. The following requirements apply to capture systems for the plant flare system.

A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device shall not have a bypass.

or

If there is a bypass for the control device, comply with either of the following requirements:

(1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit.

C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above.

59. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with Special Condition Nos. 47 through 58 must be used when conducting the planned maintenance activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Evaluation of FCCU HCN Emission Potential

60. HCN Stack Testing shall be performed on the FCCU by October 12, 2016. The stack testing shall be in accordance with the procedures in Special Condition No. 36 and as prescribed in the final Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards (Dec. 1, 2015, 80 FR 75178). The following operating parameters shall be recorded simultaneously with each test run: FCCU feed rate, coke burn rate, regenerator temperature measurements, exhaust flows, carbon monoxide (CO) and oxygen concentrations. The stack testing shall include testing between the regenerator and the scrubber to determine the scrubber efficiency at removing HCN and CO. Scrubber operating parameters that are currently monitored shall be recorded simultaneous with each test run: the total liquid and gas flow rates and the liquid to gas ratio, minimum water pressure to the nozzles in the quench/spray tower, the pressure drop across the Agglo filtering modules, scrubber water pH, and the LoTOx ozone injection rate. **(06/16)**

61. Within 90 days of submittal of the stack testing results as described in SC 60, the permit holder will submit a permit alteration or amendment application as appropriate to provide the results of the stack testing and update the representation of HCN emissions from the FCCU accordingly. The submittal shall include the complete stack test report, the operating data for each test run and the normal range of the operating parameters, a review of the test results and operating

parameters, and a recommended permit parameter or best practice operating strategy for HCN for normal operation and planned maintenance, startup and shutdown. **(06/16)**

Dated: October 25, 2017

ATTACHMENT A

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

Inherently Low Emitting Activities

	Emissions				
Activity	VOC	NO_x	CO	PM_{10}	SO_2
Aerosol Cans	X				
Calibration of CEMS Analyzers	X	X	X		X
Calibration/maintenance of process instrumentation	X				
Carbon canister replacement (valve disconnect)	X				
Catalyst Charging/Handling				X	
Meter Proving	X				
Pipeline Pigging	X				
Replacement of analyzer filters/screens	X				
Replacement of process filters/screens	X				
Spare Pump Priming - Light Liquid	X				
Spare Pump Priming - Heavy Liquid	X				
Seal Inspections and other tank inspection activities	X				
Water washing empty drums, totes, and misc. small equipment	X				

Dated: August 31, 2016

ATTACHMENT B

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

Routine Maintenance Activities

Routine MSS activities. These include activities such as:

Pump repair/replacement
Fugitive component (valve, pipe, flange) repair/replacement
Compressor repair/replacement
Heat exchanger repair/replacement
Vessel repair/replacement

ATTACHMENT C

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

MSS Activity Summary

Facilities	Description	Emissions Activity	Source Categories
all process units	process unit shutdown/depressurize/drain	vent to flare	Flares/Vapor Combustor
all process units	process unit purge/degas/drain	vent to atmosphere	Fugitives
all process units	process unit startup	vent to flare	Flares/Vapor Combustor
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	Flares/Vapor Combustor
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	Fugitives
all process units and tanks	recovery from facility/component repair/replacement	vent to flare	Flares/Vapor Combustor
all process units and tanks	recovery from facility/component repair/replacement	vent to atmosphere	Fugitives
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	Fugitives, Flares/Vapor Combustor
all floating roof tanks	tank roof landing	operation with landed roof	Storage Tanks
all floating roof tanks	degas of tank with landed roof	controlled degassing	Flares/Vapor Combustor
all tanks	tank cleaning	cleaning activity and solvents	Storage Tanks

ATTACHMENT D

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: frac tanks, containers, vacuum trucks, portable control devices identified in Special Condition No. 47, and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in this Attachment, and (c) does not operate as a replacement for an existing authorized facility.

This permit authorizes MSS emissions from the permanent site facilities identified below. The headings for each group of facilities (Process Units, Tanks, etc) are used in the MSS Activity Summary to identify all facilities in the respective group.

Source Category: Combustion Units	
EPN	**SOURCE DESCRIPTION**
B-004	Boiler (6F1-A and 6F1-B)
B-006	East Plant Boiler (6F-2)
B-007	BTX Boiler (54F-1)
B-010	BTX Boiler (54F-2)
H-004	Process Oil Heater (POT) (H-401)
H-010	No. 1 HDU Reactor Charge Heater (H-502)
H-012	No. 1 Reformer Charge Heater (H-504, H-505A, H-505B)
H-013	No. 1 Stabilizer Reboiler Heater (H-506)
H-014	Crude Charge Heater 3 (H-1102)
H-015A	Lubricating Oil Crude Atmospheric Heater (H-1001)
H-015B	Lubricating Oil Crude Atmospheric Heater (H-1002)
H-016	Vacuum Unit Charge Heater (14-H-1401)
H-018	H.C.U. Fractionation Heater (H-1501A)
H-019	H.C.U. Fractionation Heater (H-1501B)
H-020	Alky Isostripper Reboiler Heater
H-021	ROSE "DAGO" Heater (160 -H-1)
H-022	Asphalt Heater (160 -H-2)
H-023	Dowtherm Heater(160 -H-3)
H-028	Crude Charge Heater 1(100-H1)
H-030	No. 2 Reformer Charge Heaters (H-201, H-2032, H-204)
H-031	No. 1 HDU Stripper Reboiler Heater (H-501)
H-032	No. 2 Reformer Charge Heater (H-202)
H-033	No. 2 Reformer Stab. Reboiler (H-205)
H-034	H.C.U. Recycle Heater (H-1401)
H-035	H.C.U. Debutanizer Reboiler Heater (H-1402)
H-036	Crude Charge Heater 2 (100-H2)
H-037	HDU Charge Heater 2 (H-101)
H-038	H.D.U. Reboiler Htr. 2 (H-102)
H-039	No. 1 Sru Hot Oil Heater (H-101)
H-041	Dot H2 Recycle Furnace (F-2201)
H-043	Reformate Splitter Heater (54 H-101)
H-044	Reformate Splitter Heater (54 H-102)
H-045	DHT Charge Heater (H-28001)

Source Category: Combustion Units	
EPN	**SOURCE DESCRIPTION**
H-046	Fractionator Feed Heater (H-28002)
H-047	No. 2 SRU Hot Oil Heater (H-401)

Source Category: Cooling Towers	
EPN	**SOURCE DESCRIPTION**
F-0670	No. 1 West Plant Cooling Tower
F-2810	East Plant Cooling Tower
F-3670	No. 2 West Plant Cooling Tower

Source Category: Flares/Vapor Combustor	
EPN	**SOURCE DESCRIPTION**
VCU-1	Loading Rack Vapor Combustor
FL-003	FCCU Flare
FL-004	HCU Flare
FL-006	No. 2 West Plant/DOT Flare
FL-501	No. 1 West Plant/Crude Flare

Source Category: Fugitives	
EPN	**SOURCE DESCRIPTION**
F-28	DHT/ASU
F-100	No. 1 Crude
F-100	Desalter
F-400	South Merox Unit
F-500	#1 Reformer
F-620	WP Utilities
F-660	East Plant Flare System East
F-660	East Plant Flare System South
F-660	West Plant Flare System
F-660	East Plant Flare System West
F-660N	Tank Farm
F-680	WWTP Tanks
F-680W	Tank Farm
F-700	#2 Debutanizer
F-800E	Tank Farm
F-800W	Tank Farm
F-820	Tank Farm
F-830	Rail
F-830	West Rack
F-830E	Tank Farm
F-830N	Tank Farm
F-830S	Tank Farm
F-830W	Tank Farm
F-850	South Merox Unit
F-850	Tank Farm

Source Category: Fugitives	
EPN	**SOURCE DESCRIPTION**
F-850N	Tank Farm
F-850S	Tank Farm
F-900	N. Merox Unit
F-1000	POU
F-1200	Cryo
F-1400	Vacuum
F-1500	HCU
F-2000	ROSE Unit
F-2100	CCR
F-2200	DOT/Reformate Splitter
F-2200	East Plant Alkyl Splitter
F-2300	SWS
F-2400	FCCU
F-2400	FCCU Gas Con
F-2400	FCCU Merox
F-2500	HF Alky
F-2600	S LPG Area
F-2600N	Tank Farm
F-2700	LPG Loading Rack
F-2800	East Plant Cooling Tower
F-2800	East Plant Utilities
F-3700	HCU
F-3700	HCU Hot Oil Drum
F-3800	No. 2 HDU
F-3900	LEU
F-3900	HCU
F-4000	No. 1 and No. 2 SRU
F-4300	H2 Plant
F-5400	BTX
F-ROSE	Tank Farm

Source Category: Loading	
EPN	**SOURCE DESCRIPTION**
L-001	Black Oil Truck Rack
L-002	Gasoline Truck Rack
L-004	Tank Car Loading Rack
L-006	Propane Truck Rack

Source Category: Process Vents	
EPN	**SOURCE DESCRIPTION**
V-006	No. 1 Reformer Regenerator Vent
V-007	No. 2 Reformer Regenerator Vent
V-008	No. 1 SRU Incinerator
V-009	No. 2 SRU Incinerator
V-010	FCCU Scrubber Vent

Source Category: Storage Tanks	
EPN	**SOURCE DESCRIPTION**
S-007	Storage Tank No. 7
S-008	Storage Tank No. 8
S-033	Storage Tank No. 33
S-036	Storage Tank No. 36
S-044	Storage Tank No. 44
S-119	Storage Tank No. 119
S-120	Storage Tank No. 120
S-130	Storage Tank No. 130
S-211	Storage Tank No. 211
S-212	Storage Tank No. 212
S-213	Storage Tank No. 213
S-214	Storage Tank No. 214
S-215	Storage Tank No. 215
S-216	Storage Tank No. 216
S-220	Storage Tank No. 220
S-221	Storage Tank No. 221
S-222	Storage Tank No. 222
S-223	Storage Tank No. 223
S-224	Storage Tank No. 224
S-225	Storage Tank No. 225
S-316	Storage Tank No. 316
S-403	Storage Tank No. 403
S-680-5	Storage Tank No. 680-5
S-680-6	Storage Tank No. 680-6
S-680-7	Storage Tank No. 680-7
S-680-8	Storage Tank No. 680-8
S-680-9	Storage Tank No. 680-9
S-680-21	Storage Tank No. 680-21

Source Category: Wastewater	
EPN	**SOURCE DESCRIPTION**
F-0671	No. 2 API Separator
F-0680	WW Treatment Unit
F-0681	East Plant Sump
F-0682	No. 1 Crude Unit Sump
F-0683	No. 1 Reformer Sump
F-0684	600 Unit Sump
F-0685	Railroad Rack Sump
F-0686	Truck Loading Sump
F-0687	Land Treatment Unit
F-0688	Vacuum Unit Sump
F-0689	Crude Unloading Sump

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Normal Operations Emission Cap (10)	Combustion Units, Cooling Towers, Flares/Vapor Combustor, Fugitives (5), Loading, Process Vents, Storage Tanks, and Wastewater	Benzene	10.63	11.69
Normal Operations Emission Cap (10)	Combustion Units, Flares/Vapor Combustor, Fugitives, Process Vents, and Storage Tanks	H_2S	2.84	6.88
H-028	Crude Charge Heater 1 (100-H1)	NO_x	11.18	23.41
		CO	14.61	44.41
		VOC	1.10	4.80
		SO_2	15.53	14.52
		PM	1.51	6.63
		PM_{10}	1.51	6.63
		$PM_{2.5}$	1.51	6.63
H-036	Crude Charge Heater 2 (100-H2)	NO_x	11.18	31.56
		CO	14.61	55.54
		VOC	1.10	4.80
		SO_2	13.53	14.52
		PM	1.51	6.63
		PM_{10}	1.51	6.63

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		$PM_{2.5}$	1.51	6.63
H-016	Vacuum Unit Charge Heater (14-H1401)	NO_x	4.95	21.66
		CO	8.43	18.45
		VOC	0.76	3.34
		SO_2	9.41	10.10
		PM	1.05	4.62
		PM_{10}	1.05	4.62
		$PM_{2.5}$	1.05	4.62
H-021	ROSE "DAO" Heater (160-H1)	NO_x	1.90	8.31
		CO	2.41	5.27
		VOC	0.22	0.96
		SO_2	2.70	2.89
		PM	0.30	1.32
		PM_{10}	0.30	1.32
		$PM_{2.5}$	0.30	1.32
H-022	Asphalt Heater (160-H2)	NO_x	0.98	4.22
		CO	1.62	3.51
		VOC	0.15	0.64
		SO_2	1.81	1.92
		PM	0.20	0.88
		PM_{10}	0.20	0.88
		$PM_{2.5}$	0.20	0.88

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-020	Isostripper Reboiler Heater (440-H1)	NO_x	1.99	4.90
		CO	3.08	3.79
		VOC	0.27	0.67
		SO_2	1.90	1.53
		PM	0.37	0.92
		PM_{10}	0.37	0.92
		$PM_{2.5}$	0.37	0.92
B-007	"BTX" Boiler (54-F1)	NO_x	12.33	34.16
		CO	18.02	27.76
		VOC	1.26	4.70
		SO_2	0.17	0.48
		PM	1.74	6.49
		PM_{10}	1.74	6.49
		$PM_{2.5}$	1.74	6.49
H-043	Reformate Splitter Heater No. 1. (54-H101)	NO_x	4.27	9.86
		CO	4.24	4.90
		VOC	0.38	0.89
		SO_2	4.73	2.68
		PM	0.53	1.22
		PM_{10}	0.53	1.22
		$PM_{2.5}$	0.53	1.22

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-044	Reformate Splitter Heater No. 2 (54-H102)	NO_x	1.78	5.75
		CO	3.03	4.90
		VOC	0.27	0.89
		SO_2	3.38	2.68
		PM	0.38	1.22
		PM_{10}	0.38	1.22
		$PM_{2.5}$	0.38	1.22
B-004	Boiler 6F1-A and Boiler 6F1-B (6F1-A & 6F1-B)	NO_x	25.97	72.43
		CO	9.18	12.80
		VOC	0.80	2.23
		SO_2	5.66	5.16
		PM	1.11	3.08
		PM_{10}	1.11	3.08
		$PM_{2.5}$	1.11	3.08
B-006	East Plant Boiler (6-F2)	NO_x	13.07	49.82
		CO	6.81	12.98
		VOC	0.59	2.24
		SO_2	0.08	0.23
		PM	0.81	3.09
		PM_{10}	0.81	3.09
		$PM_{2.5}$	0.81	3.09

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-041	DOT H_2 Recycle Furnace (F2201)	NO_x	3.40	5.70
		CO	2.90	2.43
		VOC	0.26	0.44
		SO_2	3.24	1.33
		PM	0.36	0.60
		PM_{10}	0.36	0.60
		$PM_{2.5}$	0.36	0.60
H-039	No. 1 SRU Hot Oil Heater (H101)	NO_x	0.69	1.60
		CO	0.43	0.50
		VOC	0.04	0.08
		SO_2	0.27	0.20
		PM	0.05	0.11
		PM_{10}	0.05	0.11
		$PM_{2.5}$	0.05	0.11
H-047	No. 2 SRU Hot Oil Heater (H401)	NO_x	1.84	6.58
		CO	2.06	3.69
		VOC	0.18	0.65
		SO_2	2.28	2.00
		PM	0.25	0.91
		PM_{10}	0.25	0.91
		$PM_{2.5}$	0.25	0.91

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-015A	Lubricating Oil Crude Atmospheric Heater (H1001)	NO_x	0.58	2.53
		CO	1.01	2.20
		VOC	0.09	0.38
		SO_2	0.02	0.04
		PM	0.12	0.53
		PM_{10}	0.12	0.53
		$PM_{2.5}$	0.12	0.53
H-015B	Lubricating Oil Crude Atmospheric Heater (H1002)	NO_x	0.32	1.41
		CO	0.55	1.23
		VOC	0.05	0.22
		SO_2	0.01	0.03
		PM	0.06	0.30
		PM_{10}	0.06	0.30
		$PM_{2.5}$	0.06	0.30
H-037	HDU Charge Heater 2 (H101)	NO_x	2.68	6.72
		CO	3.02	3.78
		VOC	0.26	0.66
		SO_2	1.86	1.52
		PM	0.36	0.91
		PM_{10}	0.36	0.91
		$PM_{2.5}$	0.36	0.91

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-038	HDU Reboiler Heater 2 (H102)	NO_x	1.85	4.65
		CO	2.86	3.60
		VOC	0.25	0.63
		SO_2	1.76	1.45
		PM	0.34	0.87
		PM_{10}	0.34	0.87
		$PM_{2.5}$	0.34	0.87
H-014	Crude Charge Heater 3 (H1102)	NO_x	4.16	13.11
		CO	5.51	8.69
		VOC	0.50	1.58
		SO_2	6.16	4.76
		PM	0.69	2.18
		PM_{10}	0.69	2.18
		$PM_{2.5}$	0.69	2.18
H-034	H.C.U. Recycle Heater (H1401)	NO_x	3.47	11.24
		CO	4.29	6.95
		VOC	0.37	1.21
		SO_2	2.64	2.80
		PM	0.52	1.67
		PM_{10}	0.52	1.67
		$PM_{2.5}$	0.52	1.67

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-035	H.C.U. Debutanizer Reboiler Heater (H1402)	NO_x	3.39	11.67
		CO	5.24	9.02
		VOC	0.46	1.57
		SO_2	3.23	3.63
		PM	0.63	2.17
		PM_{10}	0.63	2.17
		$PM_{2.5}$	0.63	2.17
H-018	H.C.U. Fractionation Heater (H1501A)	NO_x	2.40	10.51
		CO	3.71	16.22
		VOC	0.32	1.42
		SO_2	2.28	3.27
		PM	0.45	1.96
		PM_{10}	0.45	1.96
		$PM_{2.5}$	0.45	1.96
H-019	H.C.U. Fractionation Heater (H1501B)	NO_x	2.40	8.02
		CO	3.71	6.20
		VOC	0.32	1.09
		SO_2	2.28	2.50
		PM	0.45	1.50
		PM_{10}	0.45	1.50
		$PM_{2.5}$	0.45	1.50

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-045	DHT Charge Heater (H28001)	NO_x	1.91	8.37
		CO	2.28	4.99
		VOC	0.21	0.91
		SO_2	2.55	2.73
		PM	0.28	1.25
		PM_{10}	0.28	1.25
		$PM_{2.5}$	0.28	1.25
H-046	Fractionator Feed Heater (H28002)	NO_x	2.69	11.76
		CO	3.56	7.79
		VOC	0.32	1.41
		SO_2	3.97	4.26
		PM	0.44	1.95
		PM_{10}	0.44	1.95
		$PM_{2.5}$	0.44	1.95
H-023	Dowtherm Heater (160-H3)	NO_x	0.09	0.27
		CO	0.15	0.22
		VOC	0.01	0.04
		SO_2	0.17	0.13
		PM	0.02	0.06
		PM_{10}	0.02	0.06
		$PM_{2.5}$	0.02	0.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-004	Process Oil Treater (POT) (H401)	NO_x	0.41	1.79
		CO	0.72	3.12
		VOC	0.06	0.27
		SO_2	0.01	0.03
		PM	0.09	0.37
		PM_{10}	0.09	0.37
		$PM_{2.5}$	0.09	0.37
H-031	No. 1 HDU Stripper Reboiler Heater (H501)	NO_x	0.79	3.44
		CO	1.32	5.79
		VOC	0.12	0.51
		SO_2	1.46	1.57
		PM	0.16	0.71
		PM_{10}	0.16	0.71
		$PM_{2.5}$	0.16	0.71
H-010	No. 1 HDU Reactor Charge Heater (H502)	NO_x	1.05	4.59
		CO	1.76	7.71
		VOC	0.16	0.69
		SO_2	1.95	2.09
		PM	0.22	0.96
		PM_{10}	0.22	0.96
		$PM_{2.5}$	0.22	0.96

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-030	No. 2 Reformer Charge Heaters (H201, H203, H204)	NO_x	19.06	-
		CO	13.63	-
		VOC	2.38	-
		SO_2	16.78	-
		PM	3.29	-
		PM_{10}	3.29	-
		$PM_{2.5}$	3.29	-
H-032	No. 2 Reformer Charge Heater (H202)	NO_x	12.27	-
		CO	11.16	-
		VOC	0.97	-
		SO_2	6.87	-
		PM	1.35	-
		PM_{10}	1.35	-
		$PM_{2.5}$	1.35	-
H-033	No. 2 Reformer Stab. Reboiler (H205)	NO_x	2.25	-
		CO	3.48	-
		VOC	0.30	-
		SO_2	2.14	-
		PM	0.42	-
		PM_{10}	0.42	-
		$PM_{2.5}$	0.42	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
H-012	No.1 Reformer Charge Heaters (H504, H505A, H505B)	NO_x	5.41	-
		CO	6.34	-
		VOC	0.57	-
		SO_2	7.00	-
		PM	0.78	-
		PM_{10}	0.78	-
		$PM_{2.5}$	0.78	-
H-013	No. 1 Stabilizer Reboiler Heater (H506)	NO_x	1.86	-
		CO	1.05	-
		VOC	0.09	-
		SO_2	1.15	-
		PM	0.13	-
		PM_{10}	0.13	-
		$PM_{2.5}$	0.13	-
H-030, H-032, H-033, H-012, and H-013	Subcaps for No.1 and No.2 Reformer Unit Heaters (H504, H505A, H505B, H506, H201, H202, H203, H204, H205)	NO_x	-	91.88
		CO	-	59.57
		VOC	-	10.46
		SO_2	-	26.77
		PM	-	14.46
		PM_{10}	-	14.46
		$PM_{2.5}$	-	14.46

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
S-007, S-008, S-033, S-036, S-039, S-044, S-119, S-120, S-130, S-211, S-212, S-213, S-214, S-215, S-216, S-220, S-221, S-222, S-223, S-224, S-225, S-316, S-319, S-403, S-680-6, S-680-7, S-680-8, S-680-9, S-680-21	Subcaps for Storage Tanks	VOC	14.08	18.67

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FL-003, FL-004, FL-006 and FL-501	Subcaps for Flares	NO_x	15.59	18.83
		CO	80.33	96.98
		VOC	63.01	117.58
		SO_2	5.17	7.00

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-28, F-100 (#1 Crude, Desalter), F-400, F-500, F-620, F-660 (EPltFlareE, EPltFlareS, West Plant Flare System), F-700, F-820, F-830S, F-850 (S Merox Unit, Tank Farm), F-900, F-1000, F-1200, F-1400, F-1500, F-2000, F-2100, F-2200 (DOT/Ref Splitter, East Plant Alky Splitter), F-2300 (SWS), F-2400 (FCCU, FCCU Gas Con, FCCU Merox), F-2500, F-2600, F-2700, F-2800 (EP Cool Twr, EP Utilities), F-3700 (HCU, HCU Hot Oil Drum), F-3800, F-3900 (LEU, HCU), F-4000, F-4300, F-5400, F-2600N, F-660N, F-660 (EPltFlareW), F-680 (WWTP Tanks), F-680W, F-800E, F-800W, F-830 (RAIL, West Rack), F-830E, F-830N, F-830W, F-850N, F-850S, F-ROSE	VOC and NH_3 Subcaps for Equipment Fugitives (5)(10)	VOC	130.44	571.34
		NH_3	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-0670	No.1 West Plant Cooling Tower (5)	VOC	0.25	1.10
		PM	0.36	1.58
		PM_{10}	0.14	0.60
		$PM_{2.5}$	0.01	0.01
F-2810	East Plant Cooling Tower (5)	VOC	1.68	7.36
		PM	2.40	10.52
		PM_{10}	0.36	1.58
		$PM_{2.5}$	0.01	0.01
F-3670	No. 2 West Plant Cooling Tower (5)	VOC	0.59	2.58
		PM	0.84	3.68
		PM_{10}	0.32	1.41
		$PM_{2.5}$	0.01	0.01
F-0680	F-0680 Open-Top Biotreatment	VOC	23.08	36.23
F-0671	No. 2 API Separator	VOC	0.48	0.95
F-0682	Crude Unit Sump	VOC	3.70	6.50
F-0683	No. 1 Reformer Sump	VOC	1.66	3.31
F-0684	600 Unit Sump	VOC	0.01	0.03
F-0685	R. R. Rack Sump	VOC	0.10	0.20
F-0686	Truck Loading Sump	VOC	0.09	0.18
F-0687	Land Farm	VOC	2.26	4.50
F-0688	Vacuum Unit Sump	VOC	2.08	4.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-0689	Crude Unload Sump	VOC	0.24	0.47
F-3110	No. 2 Reformer Sump	VOC	0.59	1.18
V-006	No. 1 Reformer Regeneration Vent	CO	37.50	1.50
		Cl_2	0.40	0.02
		VOC	1.40	0.06
V-007	No. 2 Reformer Regeneration Vent	CO	5.00	14.02
		Cl_2	0.01	0.04
		VOC	0.04	0.13
V-010	FCCU Regeneration Vent	NOx	62.69	28.82
		CO	195.47	184.29
		VOC	6.16	14.51
		SO_2	43.64	52.65
		PM	30.00	69.98
		PM_{10}	25.11	58.58
		$PM_{2.5}$	25.11	58.58
		H_2SO_4	13.69	59.96
		O_3	7.22	31.62
		HCN	19.49	45.47
V-008, V-009	Subcaps for Sulfur Plants	NO_x	6.83	19.32
		CO	29.09	82.32
		VOC	12.21	34.56
		SO_2	38.88	98.27

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM	0.37	1.02
		PM_{10}	0.37	1.02
		$PM_{2.5}$	0.37	1.02
		TRS	2.63	9.51
L-001	Oil Truck Loading Rack	VOC	0.02	0.02
L-002	Gasoline Truck Loading Rack	VOC	9.09	3.46
L-004	Tank Car Loading Rack	VOC	0.01	0.01
VCU-1	Loading Rack Vapor Combustor	NO_x	3.01	0.71
		CO	8.75	2.07
		VOC	17.98	6.88
Planned Maintenance, Startup, and Shutdown (MSS) Emission Limitations				
Cooling Towers, Combustion Units, Flares/Vapor Combustor Fugitives (5), Loading, Process Vents, Storage Tanks, and Wastewater		VOC (6) (7)	4,711.24	75.49
		NO_x (6) (7)	305.53	16.34
		CO (6) (7)	1,202.92	43.12
		SO_2 (6) (7)	894.13	61.04
		PM (6) (7)	4.54	0.66
		PM_{10} (6) (7)	4.54	0.66
		$PM_{2.5}$ (6) (7)	4.54	0.66
		H_2S (6) (7)	2.65	0.51
		Benzene (6) (7) (8)	90.70	2.65
		CS_2 (7)	0.33	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		COS (7)	1.89	0.11
Standard Permit (SP) sources incorporated by reference. Sources remain authorized by the SP(s) as listed below:				
Registration Number 83511				
B-010	BTX Boiler	NO_x	5.10	22.34
		CO	12.31	53.93
		VOC	1.83	8.03
		NH_3	1.49	6.55
		SO_2	4.55	19.93
		PM	2.53	11.10
		PM_{10}	2.53	11.10
		$PM_{2.5}$	2.53	11.10

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
Cl_2 - chlorine
COS - carbonyl sulfide
CS_2 - carbon disulfide
H_2S - hydrogen sulfide
H_2SO_4 - sulfuric acid
NH_3 - ammonia
TRS - total reduced sulfur
O_3 - ozone
HCN - hydrogen cyanide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

Emission Sources - Maximum Allowable Emission Rates

(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(6) Planned MSS VOC, NO_x, CO, SO_2, PM_{10}, H_2S, and Benzene allowable emissions are NOT included in the Normal Operations Emission Caps.
(7) Beginning January 1, 2013, MSS emissions shall be based on a rolling 12-month period.
(8) Benzene MSS allowables are included in the VOC allowables.
(9) Ammonia fugitive allowable emissions are specified by EPN.
(10) These emission caps have been carried forward from the flexible permit and do not include MSS emissions. The caps have been lowered to equal the sum of the normal operation individual limits and subcaps. The caps do not include emissions from EPN B-010, incorporated by reference from Standard Permit 83511.

Dated: October 25, 2017

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Diamond Shamrock Refining Company, L.P.
Authorizing the Construction and Operation of
Diamond Shamrock Refining Valero
Located at **Three Rivers, Live Oak County, Texas**
Latitude 28° 27′ 30″ Longitude −98° 11′ 16″

Permits: 141533 and PSDTX1017M1

Issuance Date: August 31, 2016

Expiration Date: September 16, 2025

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

SPECIAL CONDITIONS

Permit Numbers 141533 and PSDTX1017M1

Emission Limitations

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.

Federal Applicability

2. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources (New Source Performance Standards [NSPS]) in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) promulgated for:

   A. Equipment Leaks of Volatile Organic Compounds (VOC) in Petroleum Refineries, Subparts A and GGG.

   B. Storage Tanks in 40 CFR Part 60, Subparts A, K, Ka, and Kb.

3. The facilities shall comply with all applicable requirements of Title 30 Texas Administrative Code §§ 113.110, 113.120, and 113.340 (30 TAC §§ 113.110, 113.120, and 113.340), including the referenced requirements contained in 40 CFR Part 63, Subparts A, F, G, H, and CC.

Storage of VOC

4. These are the requirements for storage of VOC materials.

   A. The control requirements specified in paragraphs B through E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.5 pound per square inch absolute (psia) at the maximum expected operating temperature or (2) to storage tanks smaller than 25,000 gallons.

   B. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof (IFR): (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

Installation of equivalent control requires prior review and approval by the TCEQ Executive Director.

C. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an IFR tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

D. For any tank equipped with a floating roof, the holder of this permit shall follow 40 CFR § 60.113b, Testing and Procedures, to verify seal integrity. Additionally, the permit holder shall follow 40 CFR § 60.115b, Reporting and Recordkeeping Requirements, to provide records of the dates seals were inspected, seal integrity, and corrective actions taken.

E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute (API) Code 650 or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

F. Uninsulated tank exterior surfaces exposed to the sun shall be white, aluminum, or an equivalent light color, except where a dark color is necessary to help the tank absorb or retain heat in order to maintain the material in the tank in a liquid state.

G. The holder of this permit shall maintain a monthly emissions record which describes calculated emissions of VOC from all storage tanks and loading operations. The record shall include tank or loading point identification number, control method used, tank or vessel capacity in gallons or barrels, name of the material stored or loaded, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures. These records shall be maintained at the plant site for at least two years and be made available to representatives of the TCEQ upon request. For compliance demonstration purposes, the holder of this permit may use the meteorological data contained in AP-42, dated March 1998, or later version.

H. For the purposes of this permit, emissions for tanks shall be calculated using: (a) AP-42 “Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids” dated March 1998 and (b) the

TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks" dated February 1995.

Combustion Controls

5. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration of greater than one percent are not authorized by this permit unless authorized on the maximum allowable emission rates table. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOCs at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

Operating Parameters and Conditions

6. The benzene content of the finished gasoline products shall not exceed 4.5 percent by weight. Liquid chromatography or equivalent methods shall be used to determine the benzene concentration in gasoline products. The benzene content shall be determined at least once per quarter and records kept.

Piping, Valves, Connectors, Pumps, and Compressors in contact with VOC

7. 28VHP program: Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

   A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F or (2) operating pressure is at least five kilopascals (0.725 psi) below ambient pressure.

   B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), API, American Society of Mechanical Engineers (ASME), or equivalent codes.

   C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

   D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

   E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after

initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)(b)].

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or designated representative, early unit shut down or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

AVO Monitoring Program

8. Piping, Valves, Pumps, and Compressors in H_2S, SO_2, or Ammonia (NH_3) Service

A. Audio, olfactory, and visual checks for process streams that have greater than 2 percent H_2S by weight shall be made once per shift.

B. Immediately but no later than one hour upon detection of a leak, plant personnel shall take the following actions:

(1) Isolate the leak.

(2) Commence repair or replacement of the leaking component.

(3) Use a leak collection or containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible. **(PSD)**

Emission Limit Compliance Recordkeeping (for normal operations)

9. Recordkeeping programs for those facilities authorized and covered by this permit shall be established and maintained such that the ability to demonstrate compliance with all authorized individual permit limits and emission subcaps (short-term [lb/hr] and annual [TPY]) is ensured. Records of all operational parameters (including short-term and annual production rates, tank throughputs, etc.) necessary to demonstrate compliance with the emission limits shall be maintained on-site, and made available to representatives of the TCEQ upon request.

   Demonstration of compliance shall be provided to the TCEQ Corpus Christi Regional Office upon request based on the methodologies used in the latest permit application or as presented below.

   Storage Tanks - As specified in Special Condition No. 4, short-term ERs shall be based on the maximum expected pumping rate (fixed-roof) and the higher of the pumping rate or withdrawal rate (IFR and EFR).

   Compliance with the annual emission limitations of this permit shall be based on a 12-month rolling average of emissions. **(PSD)**

Maintenance, Startup, and Shutdown Operations

10. This permit authorizes the emissions for the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. This permit also authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: portable control devices identified in Special Condition No. 16, and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in Attachment D, and (c) does not operate as a replacement for an existing authorized facility.

    Attachment A identifies the inherently low emitting MSS activities that may be performed at the permitted facilities. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

    Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent

that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

B. the type of planned MSS activity and the reason for the planned activity;

C. the common name or the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

D. the date on which the MSS activity occurred;

E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis except as noted in MAERT Footnotes (6), (7), and (8).

11. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR Part 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas. The calibration gas used and its concentration, and the vapor to be sampled and its approximate response factor (RF), shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:

VOC Concentration = Concentration as read from the instrument*RF

(2) Sampling shall be performed as directed by this permit in lieu of Section 8.3 of Method 21. During sampling, data recording shall

not begin until after 2 times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes and the greatest VOC concentration recorded. This VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

(3) If a TVA-1000 series FID analyzer calibrated with methane is used to determine the VOC concentration, a measured concentration of 34,000 ppmv may be considered equivalent to 10,000 ppm as VOC.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) less than release concentration.

Where the release concentration is:

10,000*mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

(1) The detector shall be calibrated monthly with a certified pentane gas standard at 25 percent of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90 percent of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to 25 percent of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95 percent of that for pentane.

D. For measuring benzene breakthrough on Carbon Adsorption Systems in Special Condition No. 16A(4), a portable gas chromatograph using a flame ionization detector or photo ionization detector may be used. Alternatively a photo-ionization detector equipped with a benzene separation tube consistent with manufacturer requirements may be used. The monitor shall have the sensitivity and specificity to quantify low level benzene concentrations. The monitor device shall be calibrated within 24 hours of use with a certified calibration gas containing ~5 ppm benzene. Records of the calibration date/time and calibration result shall be maintained.

12. If the removal of a component for repair or replacement results in an open-ended line or valve, the open ended line is exempt from any NSR permit condition requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

A. a cap, blind flange, plug, or second valve must be installed on the line or valve or demonstrate that the line, valve, component, etc. has been double blocked from the process; or

B. the permit holder shall verify that there is no leakage from the open-ended line or valve. The open-ended line or valve shall be monitored on a weekly basis in accordance with the applicable NSR permit condition for fugitive emission monitoring except that a leak is defined as any VOC reading greater than background. Leaks must be repaired by the end of the next calendar day or a cap, blind flange, plug, or second valve must be installed on the line or valve. The results of this weekly check and any corrective actions taken shall be recorded.

13. This permit authorizes emissions from the storage tanks identified in the attached facility list during planned floating roof landings. Tank floating roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application, except when the VOC vapors below the floating roof are routed to a control device or a controlled recovery system from

the time the floating roof is landed until the floating roof is refloated. Tank change of service includes landings to accommodate seasonal RVP spec changes and landings to correct off-spec material that cannot be blended into finished product tanks. Emissions from change of service tank landings shall not exceed 10 tons of VOC in any rolling 12 month period. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.

A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control during this process.

This requirement does not apply if the level is lowered to allow for maintenance that is expected to be completed in less than 24 hours. In that case, the tank must be filled and the roof floated within 24 hours of landing the roof and the evolution documented in accordance with Paragraph E of this condition.

B. If the VOC true vapor pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC true vapor pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

(1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.

(2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of

the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.

(3) A volume equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration. The volume measurement shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition No. 11.

(4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.

(5) If ventilation is to be maintained with emission control, the VOC concentration shall be recorded once an hour.

(6) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC true vapor pressure of the remaining liquid in the tank is less than 0.15 psia.

C. The tank shall not be opened or ventilated without control, except as allowed by either (1) or (2) below until one of the criteria in part D of this condition is satisfied.

(1) Minimize air circulation in the tank vapor space.

(a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.

(b) Access points shall be closed when not in use.

(2) Minimize time and VOC partial pressure.

(a) The VOC partial pressure of the liquid remaining in the tank shall not exceed 0.044 psi as documented by the method specified in Part D.(1) of this condition;

(b) Blowers may be used to move air through the tank without emission control at a rate not to exceed 11,000 cubic feet per minute for no more than 12 hours. All standing liquid shall be removed from the tank during this period.

(c) Records shall be maintained of the blower circulation rate, the duration of uncontrolled ventilation, and the date and time all standing liquid was removed from the tank.

D. The tank shall not be opened except as necessary to set up for degassing and cleaning, or ventilated without control, until either all standing liquid has been removed from the tank or the liquid in the tank has a VOC true vapor pressure less than 0.02 psia. These criteria may be demonstrated in any one of the following ways.

(1) Low VOC true vapor pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC true vapor pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC true vapor pressure may be estimated based on this information and engineering calculations.

(2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:

(a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.

(b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1,000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

(c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1,000 ppmv through the procedure in Special Condition No. 11.

(3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs unless the vapor space under the floating roof is routed to a control device during refilling.

F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:

(1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;

(2) the reason for the tank roof landing;

(3) for the purpose of estimating emissions, the date and time of each of the following events:

(a) the roof was initially landed;

(b) all liquid was pumped from the tank to the extent practical;

(c) start and completion of controlled degassing, and total volumetric flow;

(d) all standing liquid was removed from the tank or any transfers of low VOC true vapor pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC true vapor pressure to <0.02 psi;

(e) if there is liquid in the tank, VOC true vapor pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow;

(f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and

(g) tank roof off supporting legs, floating on liquid.

(4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between Events (c) and (g) with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 “Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids” dated November 2006 and the permit application.

14. Fixed roof storage tanks are subject to the requirements of Special Condition Nos. 13.C and 13.D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition Nos. 13.B(1) through 13.B(5) and records maintained per Special Condition Nos. 13.F(3)(c) through 13.F(3)(e), and 13.F(4).

15. MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit.

16. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

    Controlled recovery systems identified in this permit shall be directed to an operating refinery process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

    A. Carbon Adsorption System (CAS).

        (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

        (2) The CAS shall be sampled downstream on the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

            (a) CAS systems equipped with an upstream liquid scrubber may be sampled once every 12 hours of CAS run time to determine breakthrough.

            (b) Sampling frequency may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

            (c) The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If breakthrough is monitored on the initial sample of the

upstream can when the polishing can is put in place, a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11.

(4) Breakthrough is defined as the highest measured VOC or benzene concentration at or exceeding 100 ppmv or 5 ppmv, respectively, above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within 24 hours. In lieu of replacing canisters, the flow of waste gas may be discontinued until the canisters are switched. Sufficient new activated carbon canisters shall be available to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

(a) Sample time and date.

(b) Monitoring results (ppmv).

(c) Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

(7) Liquid scrubbers may be used upstream of carbon canisters to enhance VOC capture provided such systems are closed systems and the spent absorbing solution is discharged into a closed container, vessel, or system.

B. Single Carbon Adsorption or Scrubber System

As an alternative to the requirements in Paragraph A(6) and A(7) a single liquid scrubbing or single carbon adsorption system may be used as a sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be continuously monitored with a CEM. The VOC concentration shall be recorded at least once every 15 minutes when waste gas is directed to the CAS or scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11 except Special Condition No. 11.C.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background and 2 percent of the system inlet concentration. Inlet concentration must be monitored as well. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

C. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1,400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency. Temperature measurements recorded in continuous strip charts may be used to meet the requirements of this section.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

(3) As an alternative to the firebox exit temperature and residence time specified in Special Condition No. 16C(1), the thermal oxidizer may be tested to determine the minimum operating temperature and residence time needed to achieve a minimum destruction efficiency of 99 weight percent. The thermal oxidizer must have been stack tested within the past 12 months. Stack VOC concentrations and flow rates shall be measured in accordance with applicable EPA Reference Methods. A copy of the test report shall be maintained with the thermal oxidizer and a summary of the testing results shall be included with the emission calculations.

D. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the period specified in Paragraph D(3) of this condition. VOC shall be measured in accordance with the applicable EPA Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition No. 11 are also acceptable for this documentation.

(3) The engine shall be operated and monitored in accordance with either a or b below.

(a) If the engine is operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller, documentation for each AFR controller that the manufacturer's or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation. The engine must have been stack tested within the past 12 months in accordance with Paragraph D(2) of this condition.

The test period may be extended to 24 months if the engine exhaust is sampled once an hour when waste gas is directed to the engine using a detector meeting the requirements of Special Condition No. 11. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection

system downstream of the engine. The concentrations shall be recorded and the MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background.

(b) If an oxygen sensor-based AFR controller is not used, the engine exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the engine. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 11. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. The engine must have been stack tested within the past 24 months in accordance with Paragraph D(2) of this condition.

E. A closed loop refrigerated vapor recovery system

(1) The vapor recovery system shall be installed on the facility to be degassed using good engineering practice to ensure air contaminants are flushed from the facility through the refrigerated vapor condensers and back to the facility being degassed. The vapor recovery system and facility being degassed shall be enclosed except as necessary to insure structural integrity (such as roof vents on a floating roof tank).

(2) VOC concentration in vapor being circulated by the system shall be sampled and recorded at least once every 4 hours at the inlet of the condenser unit with an instrument meeting the requirements of Special Condition No. 11.

(3) The quantity of liquid recovered from the tank vapors and the tank pressure shall be monitored and recorded each hour. The liquid recovered must increase with each reading and the tank pressure shall not exceed one inch water pressure while the system is operating.

F. Other control devices approved by the TCEQ through a permit amendment application or a pollution control permit application.

17. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with Special Condition Nos. 10 through 16 must be used when conducting the planned maintenance activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Dated: August 31, 2016

ATTACHMENT A

Permit Numbers 141533 and PSDTX1017M1

Inherently Low Emitting Activities

	Emissions				
Activity	VOC	NO_x	CO	PM_{10}	SO_2
Seal Inspections and other tank inspection activities	X				
Aerosol Cans	X				
Pipeline Pigging	X				
Spare Pump Priming – Light Liquid	X				
Spare Pump Priming – Heavy Liquid	X				

Dated: August 31, 2016

ATTACHMENT B

Permit Numbers 141533 and PSDTX1017M1

Routine Maintenance Activities

Routine MSS activities. These include activities such as:

Pump repair/replacement
Fugitive component (valve, pipe, flange) repair/replacement

Dated: August 31, 2016

ATTACHMENT C

Permit Numbers 141533 and PSDTX1017M1

MSS Activity Summary

Facilities	Description	Emissions Activity	Source Categories
all tanks	preparation for facility/component repair/replacement	vent to flare and/or equivalent control	Control devices
all tanks	preparation for facility/component repair/replacement	vent to atmosphere	Fugitives
all tanks	recovery from facility/component repair/replacement	vent to flare and/or equivalent control	Control devices
all tanks	recovery from facility/component repair/replacement	vent to atmosphere	Fugitives
all tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	Fugitives, Control devices
all floating roof tanks	tank roof landing	operation with landed roof	Storage Tanks
all floating roof tanks	degas of tank with landed roof	controlled degassing	Control devices
all tanks	tank cleaning	cleaning activity and solvents	Storage Tanks

Dated: August 31, 2016

ATTACHMENT D

Permit Numbers 141533 and PSDTX1017M1

This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: portable control devices identified in Special Condition No. 16 and controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in this Attachment, and (c) does not operate as a replacement for an existing authorized facility.

This permit authorizes MSS emissions from the permanent site facilities identified below. The headings for each group of facilities (Process Units, Tanks, etc) are used in the MSS Activity Summary to identify all facilities in the respective group.

Source Category: Fugitives	
EPN	**SOURCE DESCRIPTION**
V-F-660N	Tank Farm
V-F-680W	Tank Farm
V-F-800E	Tank Farm
V-F-800W	Tank Farm
V-F-820	Tank Farm
V-F-830E	Tank Farm
V-F-830N	Tank Farm
V-F-830S	Tank Farm
V-F-830W	Tank Farm
V-F-850	Tank Farm
V-F-850N	Tank Farm
V-F-850S	Tank Farm
V-F-2600N	Tank Farm
V-F-ROSE	Tank Farm

Source Category: Storage Tanks	
EPN	**SOURCE DESCRIPTION**
S-031	Storage Tank No. 31
S-032	Storage Tank No. 32
S-033	Storage Tank No. 33
S-034	Storage Tank No. 34
S-035	Storage Tank No. 35
S-037	Storage Tank No. 37
S-038	Storage Tank No. 38
S-040	Storage Tank No. 40

Source Category: Storage Tanks	
EPN	**SOURCE DESCRIPTION**
S-041	Storage Tank No. 41
S-042	Storage Tank No. 42
S-043	Storage Tank No. 43
S-100	Storage Tank No. 100
S-101	Storage Tank No. 101
S-102	Storage Tank No. 102
S-108	Storage Tank No. 108
S-114	Storage Tank No. 114
S-115	Storage Tank No. 115
S-116	Storage Tank No. 116
S-127	Storage Tank No. 127
S-128	Storage Tank No. 128
S-129	Storage Tank No. 129
S-200	Storage Tank No. 200
S-201	Storage Tank No. 201
S-206	Storage Tank No. 206
S-207	Storage Tank No. 207
S-208	Storage Tank No. 208
S-209	Storage Tank No. 209
S-210	Storage Tank No. 210
S-217	Storage Tank No. 217
S-218	Storage Tank No. 218
S-219	Storage Tank No. 219
S-300	Storage Tank No. 300
S-301	Storage Tank No. 301
S-302	Storage Tank No. 302
S-303	Storage Tank No. 303
S-304	Storage Tank No. 304
S-305	Storage Tank No. 305
S-306	Storage Tank No. 306
S-308	Storage Tank No. 308
S-309	Storage Tank No. 309
S-310	Storage Tank No. 310
S-311	Storage Tank No. 311
S-312	Storage Tank No. 312
S-313	Storage Tank No. 313
S-314	Storage Tank No. 314
S-315	Storage Tank No. 315
S-317	Storage Tank No. 317
S-318	Storage Tank No. 318

Source Category: Storage Tanks	
EPN	**SOURCE DESCRIPTION**
S-331	Storage Tank No. 331
S-332	Storage Tank No. 332
S-333	Storage Tank No. 333
S-334	Storage Tank No. 334
S-335	Storage Tank No. 335
S-336	Storage Tank No. 336
S-337	Storage Tank No. 337
S-338	Storage Tank No. 338
S-339	Storage Tank No. 339
S-340	Storage Tank No. 340
S-354	Storage Tank No. 354
S-401	Storage Tank No. 401
S-402	Storage Tank No. 402
S-3201	Storage Tank No. S-3201
S-3202	Storage Tank No. S-3202

Dated: August 31, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 141533 and PSDTX1017M1

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Normal Operations Emission Cap (9)	Fugitives (5), Storage Tanks, and Wastewater	Benzene	1.91	4.36
Normal Operations Emission Cap (9)	Fugitives (5), Storage Tanks, and Wastewater	H_2S	0.14	0.32
S-031, S-032, S-034, S-035, S-037, S-038, S-040, S-041, S-042, S-043, S-100, S-101, S-102, S-108, S-114, S-115, S-116, S-127, S-128, S-129, S-200, S-201, S-206, S-207, S-208, S-209, S-210, S-217, S-218, S-219, S-300, S-301, S-302, S-303, S-304, S-305, S-306, S-308, S-309, S-310, S-311, S-312, S-313, S-314, S-315, S-317, S-318, S-331, S-332, S-333, S-334, S-335, S-336, S-337, S-338, S-339, S-340, S-354, S-401, S-402, S-3201, S-3202	Subcaps for Storage Tanks	VOC	72.74	118.03
V-F-660N, V-F-680W V-F-800E, V-F-800W, V-F-820, V-F-830E, V-F-830N, V-F-830S, V-F-830W, V-F-850, V-F-850N, V-F-850S, V-F-2600N, V-F-ROSE	VOC and NH_3 Subcap for Equipment Fugitives (5)	VOC	6.57	28.76
		NH_3	<0.01	<0.01
S-311	Storage Tank 311	VOC	1.24	1.53

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Planned Maintenance, Startup, and Shutdown (MSS) Emission Limitations (7)				
Control devices, Fugitives (5) and Storage Tanks		VOC	4,573.82	24.34
		NO_x	51.22	1.37
		CO	31.11	0.83
		SO_2	6.66	0.50
		PM	3.14	0.08
		PM_{10}	3.14	0.08
		$PM_{2.5}$	3.14	0.08
		H_2S (6)	0.30	0.01
		Benzene (6) (8)	83.71	0.25

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
H_2S - hydrogen sulfide
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
(6) Planned MSS H_2S and Benzene allowable emissions are NOT included in the Normal Operations Emission Caps.
(7) MSS emissions shall be based on a rolling 12-month period.
(8) Benzene MSS allowables are included in the VOC allowables.
(9) These emission caps have been carried forward from the flexible permit and do not include MSS emissions. The caps have been lowered to equal the sum of the normal operation individual limits and subcaps.

Dated: August 31, 2016